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ABSTRACT

The annotated bibliography on Creativity--General/Classroom/Problem Solving contains approximately 85 abstracts and associated indexing information for documents or journal articles published from 1962 to 1975 and selected from the computer files of the Council for Exceptional Children's Information Services and the Education Resources Information Center (ERIC). It is explained that titles were chosen in response to user requests and analysis of current trends in the field. Abstracts include bibliographic data (identification or order number, publication date, author, title, source or publisher, and availability); descriptors indicating the subject matter covered; and a summary of the document's contents. Also provided are instructions for using the bibliography, a list of journals from which articles were abstracted, and an order form for ordering microfiche or paper copies of the documents through the ERIC Document Reproduction Service. (PM)

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Creativity—General/Classroom/ Problem Solving

A Selective Bibliography

CEC Information Services and Publications
An ERIC Clearinghouse
The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Exceptional Child Bibliography Series No. 667

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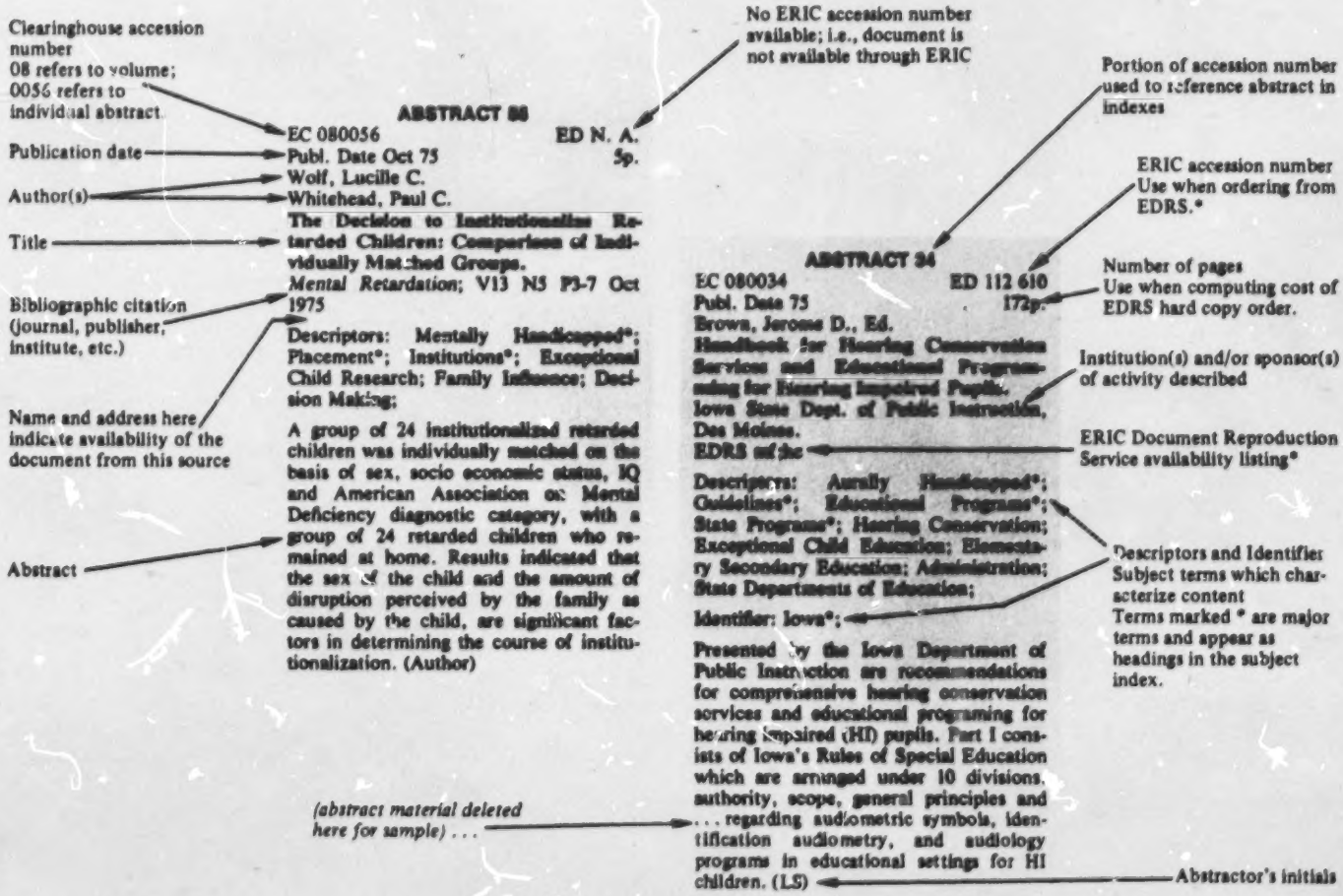
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ABSTRACT 56
EC 080056
ED N. A.
5p.
Publication date
Publ. Date Oct 75
Author(s)
Wolf, Lucille C.
Whitehead, Paul C.
ERIC accession number
Use when ordering from EDRS.*
Title
The Decision to Institutionalize Retarded Children: Comparison of Individually Matched Groups.
Bibliographic citation (journal, publisher, institute, etc.)
Mental Retardation; V13 N5 P3-7 Oct 1975
Descriptors: Mentally Handicapped*; Placement*; Institutions*; Exceptional Child Research; Family Influence; Decision Making;
Name and address here indicate availability of the document from this source
A group of 24 institutionalized retarded children was individually matched on the basis of sex, socio economic status, IQ and American Association on Mental Deficiency diagnostic category, with a group of 24 retarded children who remained at home. Results indicated that the sex of the child and the amount of disruption perceived by the family as caused by the child, are significant factors in determining the course of institutionalization. (Author)
Abstract
ABSTRACT 34
EC 080034
ED 112 610
Publ. Date 75
172p.
Number of pages
Use when computing cost of EDRS hard copy order.
Brown, Jerome D., Ed.
Handbook for Hearing Conservation Services and Educational Programming for Hearing Impaired Pupils.
Institution(s) and/or sponsor(s) of activity described
Iowa State Dept. of Public Instruction, Des Moines.
EDRS mf/hc
ERIC Document Reproduction Service availability listing*
Descriptors: Aurally Handicapped*; Guidelines*; Educational Programs*; State Programs*; Hearing Conservation; Exceptional Child Education; Elementary Secondary Education; Administration; State Departments of Education;
Identifier: Iowa*;
Descriptors and Identifiers
Subject terms which characterize content
Terms marked * are major terms and appear as headings in the subject index.
Presented by the Iowa Department of Public Instruction are recommendations for comprehensive hearing conservation services and educational programing for hearing impaired (HI) pupils. Part I consists of Iowa's Rules of Special Education which are arranged under 10 divisions. authority, scope, general principles and
(abstract material deleted here for sample) . . .
. . . regarding audiometric symbols, identification audiometry, and audiology programs in educational settings for HI children. (LS)
Abstractor's initials

CEC Information Center Journal Collection

The CEC Information Center regularly receives more than 200 journals which are examined for material concerning exceptional children. Articles judged to meet established criteria are abstracted, indexed and published in *Exceptional Child Education Abstracts (ECEA)*. Some of these articles are indexed and submitted also for announcement in *Current Index to Journals in Education (CIJE)*, an Educational Resources Information Center (ERIC) publication. The following list (current May 1976) is *representative* of journals currently received.

*Academic Therapy, 1539 Fourth Street, San Rafael, California 94901

ACTA Symbolica, University of Akron, Akron, Ohio 44304

Adolescence, PO Box 165, 391 Willets Road, Roslyn Heights, New York 11577

*American Annals of the Deaf, 5034 Wisconsin Avenue NW, Washington DC 20016

American Education, 400 Maryland Avenue SW, Washington DC 20202

American Educational Research Journal, 1126 16th Street NW, Washington DC 20036

American Journal of Art Therapy, 6010 Broad Branch Road, Washington DC 20015

American Foundation for the Blind Research Bulletin, 15 West 16th Street, New York, New York 10011

**American Journal of Diseases of Children, 535 North Dearborn Street, Chicago, Illinois 60610

*American Journal of Mental Deficiency, 49 Sheridan Avenue, Albany, New York 12210

American Journal of Nursing, 10 Columbus Circle, New York, New York 10019

**American Journal of Occupational Therapy, 6000 Executive Boulevard, Suite 200, Rockville, Maryland 20852

*American Journal of Orthopsychiatry, 1790 Broadway, New York, New York 10019

Archives of Otalaryngology, 535 North Dearborn Street, Chicago, Illinois 60610.

Arithmetic Teacher, 1201 16th Street NW, Washington DC 20036

ASHA, 9030 Old Georgetown Road, Washington DC 20014

Audecibel, 24261 Grand River Avenue, Detroit, Michigan 48219

Auditory & Hearing Education, 15300 Ventura Boulevard, Suite 301, Sherman Oaks, California 91403

Audio-visual Instruction, 1201 16th Street NW, Washington, DC 20036

Australian Children Limited, Box 91, Brighton 5048, South Australia

*Australian Journal of Mental Retardation, P.O. Box 255, Carlton, South Victoria 3053, Australia

AVISO, Newark State College, Union, New Jersey 07083

**Behavior Therapy, 111 Fifth Avenue, New York, New York 10003

Behavior Today, Ziff-Davis Publishing Co., 1156 15th Street NW, Washington DC 20036

Behavioral Disorders, Council for Children with Behavior Disorders, Indiana University, Bloomington, Indiana 47401

British Journal of Disorders of Communication, 4345 Annandale Street, Edinburgh EH7 4 AT, Scotland

British Journal of Mental Subnormality, Monyhull Hospital, Birmingham B30 3QB, England

British Journal of Physical Education, Ling House, 10 Nottingham Place, London WIM 4 AX, England

Bulletin of the Orton Society, 8415 Bellona Lane, Suite 204, Towson, Maryland 20402

Bulletin of Prosthetics Research, US Government Printing Office, Washington DC 20402

*Bureau Memorandum, 126 Langdon Street, Madison, Wisconsin 53702

CSMR Bulletin, 345 Campus Towers, Edmonton, Alberta, Canada

Canada's Mental Health, Information Canada, Ottawa K1A 0S9, Canada

CEDR Quarterly, Phi Delta Kappa, PO Box 789, Bloomington, Indiana 47401

Child Care Quarterly, 2852 Broadway, Morningside Heights, New York 10025

Child Development, 5750 Ellis Avenue, Chicago, Illinois 60637

**Child Psychiatry & Human Development, 2852 Broadway, Morningside Heights, New York 10025

Child Welfare, 67 Irving Place, New York, New York 10003

Childhood Education, 3615 Wisconsin Avenue NW, Washington DC 20016

Children Today, US Government Printing Office, Washington DC 20402

Children's House, Box 111, Caldwell, New Jersey 07006

Colorado Journal of Educational Research, University of Northern Colorado, Greeley, Colorado 80631

Communication Education (formerly Speech Teacher) Speech Communication Association, Statler Hilton Hotel, New York, New York 10001

Compact, 300 Lincoln Tower, 1860 Lincoln Street, Denver, Colorado 80203

Day Care & Early Education, 2852 Broadway, New York, New York 10025

Deaf American, 5125 Radnor Road, Indianapolis, Indiana 46226

Deficience Mentale/Mental Retardation, York University, 4700 Keele Street, Downsview, Ontario M3J 1P3, Canada

Developmental Medicine and Child Neurology, Spastic International Medical Publications, 20-22 Mortimer Street, London W1N 7RD, England

Devereux Forum, 19 South Waterloo Road, Devon, Pennsylvania 19333

DSH Abstracts, Gallaudet College, Washington, DC 20002

Dyslexia Review, The Dyslexia Institute, 133 Gresham Road, Staines, TW18 2AJ, England

*Education and Training of the Mentally Retarded, 1920 Association Drive, Reston, Virginia 22091

Education Digest, PO Box 623, 416 Longshore Drive, Ann Arbor, Michigan 48107

*Education of the Visually Handicapped, 919 Walnut St. Fourth Floor, Philadelphia, Pennsylvania 19107

Educational & Psychological Measurement, Box 6907, College Station, Durham, North Carolina 27708

Educational Forum, 343 Armory Building, University of Illinois, Champaign, Illinois 61820

Educational Horizons, 2000 East 8th Street, Bloomington, Indiana 47401

Educational Leadership, 1201 16th Street NW, Washington DC 20036

Educational Researcher, 1126 16th Street NW, Washington DC 20036

Educational Technology, 140 Sylvan Avenue, Englewood Cliffs, New Jersey 07632

Elementary School Journal, 5801 Ellis Avenue, Chicago, Illinois 60637

English Journal, 1111 Kenyon Road, Urbana, Illinois 61801

*Exceptional Children, 1920 Association Drive, Reston, Virginia 22091

*Exceptional Parent, 264 Beacon Street, Boston, Massachusetts 02116

Family Involvement, Canadian Education Program, 41 Madison Avenue, Toronto, Ontario M5R 2S2, Canada

Focus on Exceptional Children, 6635 East Villanova Place, Denver, Colorado 80222

*Gifted Child Quarterly, 8080 Springvalley Drive, Cincinnati, Ohio 45236

Harvard Educational Review, 23 South Main Street, Uxbridge, Massachusetts 02138

Hearing, 105 Gower Street, London WCIE 6AH, England

*Hearing & Speech Action, 814 Thayer Avenue, Silver Spring, Maryland 20910

Hearing Rehabilitation Quarterly, New York League for the Hard of Hearing, 71 W. 23rd Street, New York, New York 10010

Human Behavior, PO Box 2810, Boulder, Colorado 80302

Humanist, 923 Kensington Ave., Buffalo, New York 14215

Illinois Schools Journal, 6800 South Stewart Avenue, Chicago, Illinois 60621

Indiana Speech & Hearing Journal, Ball State University, Muncie, Indiana 47306

Instructor, PO Box 6099, Duluth, Minnesota 55806

Inter-Clinic Information Bulletin, 317 East 34th Street, New York, New York 10016

International Child Welfare Review, 1 Rue De Varembe, 1211 Geneva 20, Switzerland

International Journal of Child Psychiatry, Verlag 10, Basel 13, Switzerland

International Rehabilitation Review, 219 East 44th Street, New York, New York 10017

Involvement, PO Box 460, Oak Ridges, Ontario, Canada

*denotes journals monitored for CIJE.

**denotes copyrighted journals for which ECEA has been granted permission to use author abstracts.

Journal for Special Educators of the Mentally Retarded, 171, Center Conway, New Hampshire 03813

*Journal of Abnormal Child Psychology, **Plenum Publishing Corp., 227 W. 17th Street, New York, New York 10011

**Journal of Abnormal Psychology, 1200 17th Street NW, Washington DC 20036

*Journal of Applied Behavior Analysis, Uni-**versity of Kansas, Lawrence, Kansas 66044

Journal of Applied Rehabilitation Counseling, 1522 K Street NW, Washington DC 20005

Journal of Association for Study of Perception, PO Box 744, De Kalb, Illinois 60115

*Journal of Autism & Childhood Schizophre-**nia, Plenum Publishing Corp., 227 W. 17th Street, New York, New York 10011

Journal of Child Psychology & Psychiatry, Pergamon Press, Elmsford, New York 10523

Journal of Clinical Child Psychology, 111 South Meramec Avenue, No. 208, St. Louis, Missouri 63105

Journal of Communication Disorders, American Elsevier Publishing Co., 52 Vanderbilt Avenue, New York, New York 10014

Journal of Community Health, Human Sciences Press, 72 Fifth Avenue, New York, New York 10014

**Journal of Consulting & Clinical Psychology, 1200 17th Street NW, Washington DC 20036

Journal of Creative Behavior, 1300 Elmwood Avenue, Buffalo, New York 14222

Journal of Developmental Disabilities, PO Box 8470, Gentilly Station, New Orleans, Louisiana 70182

Journal of Education, Department of Education, Halifax, Nova Scotia

**Journal of Educational Psychology, 1200 17th Street NW, Washington DC 20036

**Journal of Educational Research, Box 1605, Madison, Wisconsin 53701

Journal of General Education, 215 Wagner Building, University Park, Pennsylvania 16802

*Journal of Learning Disabilities, 5 North **Wabash Avenue, Chicago, Illinois 60602

Journal of Marriage & the Family, 1219 University Avenue SE, Minneapolis, Minnesota 55414

*Journal of Mental Deficiency Research, 86 Newman Street, London W1P 4 AR, England

Journal of Music Therapy, Box 610, Lawrence, Kansas 66044

Journal of Negro Education, Howard University, Washington DC 20001

**Journal of Nervous & Mental Disease, 428 East Preston Street, Baltimore, Maryland 21201

*Journal of Pediatrics, 11830 Westline Industrial Drive, St. Louis, Missouri 63141

**Journal of Personality Assessment, 1070 East Angeleno Avenue, Burbank, California 91501

Journal of Reading, 6 Tyre Avenue, Newark, Delaware 19711

Journal of Rehabilitation, 1522 K Street NW, Washington DC 20005

Journal of Rehabilitation of the Deaf, 814 Thayer Avenue, Silver Spring, Maryland 20910

Journal of School Health, American School Health Association, Kent, Ohio 44240

**Journal of School Psychology, 51 Riverside Avenue, Westport, Connecticut 06880

*Journal of Special Education, Grune and **Stratton, 111 Fifth Avenue, New York, New York 10003

*Journal of Speech & Hearing Disorders, 9030 Old Georgetown Road, Washington, DC 20014

*Journal of Speech & Hearing Research, **9030 Old Georgetown Road, Washington DC 20014

Journal of Teacher Education, One Dupont Circle, Washington DC 20036

*Language Speech & Hearing Services in Schools, 9030 Old Georgetown Road, Washington DC 20014

Lantern, Perkins School for the Blind, Watertown, Massachusetts 02172

Learning, 530 University Avenue, Palo Alto, California 94301

Mathematics Teacher, 1906 Association Drive, Reston, Virginia 22091

*Mental Retardation, 5201 Connecticut Ave-**nue NW, Washington DC 20015

Merrill Palmer Quarterly, 71 East Ferry Avenue, Detroit, Michigan 48202

Momentum, 350, One Dupont Circle, Washington DC 20036

Music Educators Journal, 1902 Association Drive, Reston, Virginia 22091

NASSP Bulletin, 1904 Association Drive, Reston, Virginia 22091

National Elementary Principal, 1801 North Moore Street, Arlington, Virginia 22209

The New Beacon, 224 Great Portland Street, London WIN/AA, England

*New Outlook for the Blind, 15 West 16th Street, New York, New York 10011

Notre Dame Journal of Education, PO Box 686, Notre Dame, Indiana 46556

Nursing Outlook, 10 Columbus Circle, New York, New York 10019

Optometric Weekly, 5 North Wabash Avenue, Chicago, Illinois 60602

Parents Voice, Journal of the National Society of Mentally Handicapped Children, Pembridge Square, London W2 4EP, England

Peabody Journal of Education, George Peabody College for Teachers, Nashville, Tennessee 37203

*Pediatrics, PO Box 1034 Evanston, Illinois **60204

**Personnel & Guidance Journal, 1607 New Hampshire Avenue NW, Washington DC 20009

Phi Delta Kappan, 8th & Union Streets, Bloomington, Indiana 47401

**Physical Therapy, 1156 15th Street NW, Washington DC 22005

Pointer, PO Box 131, University Station, Syracuse, New York 13210

Psychology in the Schools, 4 Conant Square, Brandon, Vermont 05733

Psychology Today, PO Box 2990, Boulder, Colorado 80302

Quarterly Journal of Speech, Speech Communication Association, Statler Hilton Hotel, New York, New York 10001

**Reading Research Quarterly, 6 Tyre Ave-nue, Newark, Delaware 19711

Reading Teacher, 6 Tyre Avenue, Newark, Delaware 19711

Rehabilitation Digest, One Yonge Street, Suite 2110, Toronto Ontario M5E 1E8, Canada

Rehabilitation Gazette, 4502 Maryland Avenue, St. Louis, Missouri 63108

*Rehabilitation Literature, 2023 West Ogden **Avenue, Chicago, Illinois 60612

Rehabilitation Teacher, 58 St. Stephen Street, Boston, Massachusetts 02115

Remedial Education, 5 Netherlee Street, Glen Iris, Victoria 3146, Australia

Review of Educational Research, 1126 16th Street NW, Washington, DC 20036

**Scandinavian Journal of Rehabilitation Medicine, Gamla Brogatan 26, Box 62, S-101 20 Stockholm 1, Sweden

Schizophrenia Bulletin, 5600 Fishers Lane, Rockville, Maryland 20852

School Media Quarterly, 1201-1205 Bluff Street, Fulton, Missouri 65251

*Sight Saving Review, 79 Madison Avenue, New York, New York 10016

Sign Language Studies, Linstock Press, 9306 Mintwood St., Silver Spring, Maryland 20901

*Slow Learning Child, St. Lucia, Brisbane 4067, Australia

**Social Work, 49 Sheridan Avenue, Albany, New York 12210

Southern Journal of Educational Research, Box 107, Southern Station, Hattiesburg, Mississippi 39401

Special Children, American Association of Special Educators, 107-20 125th Street, New York, New York 11419

*Special Education: Forward Trends, National Council for Special Education, 12 Hollycroft Avenue, London NW3 7QL, England

Special Education in Canada, Parkway V S, 1 Danforth Avenue, Toronto, Ontario, Canada

Speech Monographs, Speech Communication Association, Statler Hilton Hotel, New York, New York 10001

Teacher, 22 West Putnam Avenue, Greenwich, Connecticut 06830

Teacher of the Blind, Royal School for the Blind, Church Road North, Wavertree, Liverpool L156TQ, England

Teacher of the Deaf, 50 Topsham Road Exeter EX2 4NF, England

Teachers College Record, 525 West 120th Street, New York, New York 10027

**TEACHING Exceptional Children, 1920 Association Drive, Reston, Virginia 22091

*Volta Review, 3417 Volta Place NW, Wash-**ington, DC 20007

Young Children, 1384 Connecticut Avenue NW, Washington, DC 20009

ABSTRACT 783

EC 002 757 ED 025 063
Publ. Date Feb 68 65p.
Torrance, E. Paul
Minnesota Studies of Creative Behavior: 1958-1966.
Georgia University, Athens;
Richardson Foundation, Greensboro, North Carolina, Creativity Research Institute
Office Of Education (DHEW), Washington, D. C., Cooperative Research Program;
Minnesota University Graduate School Research Fund, Minneapolis;
Richardson Foundation, Greensboro, North Carolina
EDRS mf,hc

Descriptors; exceptional child research; creativity; cognitive processes; educational practice; research utilization; masters theses; doctoral theses; research projects; research reviews (publications); instructional materials; tests; creativity research; creative thinking; creative development; thought processes; Minnesota Studies of Creative Behavior; Minnesota Studies of Creative Thinking

The impact of the Minnesota Studies of Creative Behavior on education and their contributions to educational practices are assessed; national and international extensions of the Minnesota Studies are summarized. Research is cited and interpreted. Lists are provided of 200 publications in open sources related to the Minnesota Studies and 253 master's and doctoral research papers and other research projects using tests and or instructional materials developed by the Minnesota Studies. (JD)

ABSTRACT 851

EC 001 545
Publ. Date 67
Gowan, John Curtis, Comp. And Others
Creativity--Its Educational Implications.
EDRS not available
John Wiley And Sons, Inc., 605 Third Avenue, New York, New York 10016 ($7.95).

Descriptors: exceptional child education; creativity; gifted; talented students; curriculum; student characteristics; guidance; identification; teacher education; creativity research; educational needs; performance factors; creative writing; teacher role; parent role; taxonomy; predictive measurement; creative thinking; creative development; creative teaching; creative art; counselor role; teaching methods

Thirty-six articles by different authors present ways in which the results of creativity research may be utilized in the school, the classroom, and the counseling office. After an introduction, five articles treat general considerations: the causes and conditions of creativity, and the education and understanding of creative and gifted children. Four papers on theory and policy investigate creative learning, thinking, de[redacted] tentiality. Characteris[redacted] children are discussed in th[redacted] and the question whether creativity may be increased by practice is raised in five articles dealing with teacher attitudes and teaching. also included are four articles on a curriculum for creativity and teaching methods, five articles on guidance and measurement of creativity, five on teachers and parents, and five on research and summary. Many of the articles report research findings, and some detail experimental procedures. reference lists (some annotated) accompany the majority of the papers. (MW)

ABSTRACT 1082

EC 500 969 ED N.A.
Publ. Date 69 7p.
Day, H. I.; Langevin, R.
Curiosity and Intelligence: Two Necessary Conditions for a High Level of Creativity.
EDRS not available
Journal Of Special Education; V3 N3 P263-8 Fall 1969

Descriptors: creativity research; creativity; curiosity; intelligence factors; individual characteristics; personality assessment; intelligence quotient; comparative testing

In order to investigate positive correlations between measures of curiosity and intelligence, IQ and creativity, and curiosity and creativity, 75 female nursing students were given two tests of curiosity (Specific Curiosity Test and Specific Curiosity Questionnaire), two tests of creativity (Mednick's Remote Associations Test and Author Day's Humor Captions), and one intelligence test (Hartford-Shipley Aptitude Test). Results showed that curiosity and IQ scores failed to correlate significantly, although the tendency to do so was in a positive direction, and that both curiosity test scores correlated with the verbal portion of the Hartford-Shipley. (RD)

ABSTRACT 1109

EC 005 116 ED 025 814
Publ. Date Jun 68 16p.
Anderson, Charles C.
A Theory of Nonverbal Creativity.
Canadian Council For Research In Education, Ottawa, Ontario
EDRS mf,hc
Paper Presented At The Sixth Canadian Conference On Educational Research, Ste. Foy, Quebec, June 1968.

Descriptors: creative thinking; creativity; creativity research; nonverbal ability; psychological characteristics; psychophysiology

Nonverbal creativity, here primarily referring to scientific or mathematical creativity, is considered a function of a set of psychophysiological characteristics. The most important of these, necessary and sufficient for nonverbal creativity, is seen to be a slight dominance of hippocampal or cortical inhibitory activity over reticular, or cortical arousal activity. Considerable evidence, historical, biographical, and experimental, is brought to support this position. To the extent that the verbal centers in the dominant cerebral hemisphere are highly developed in early childhood, the corresponding interpretive centers in the nondominant hemisphere are undeveloped. These two physiological relationships have observable psychological counterparts in the taciturn, noncommunicative person demonstrating nondistractable concentration and susceptibility to mental fatigue and temporary memory impairment, all characteristics of the nonverbally creative person as illustrated historically. (BP)

ABSTRACT 1110

EC 005 117 ED 025 999
Publ. Date 67 174p.
Heist, Paul, Ed.
Education for Creativity, A Modern Myth?
California University, Berkeley, Center For Research And Development In Higher Education
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
OEC-6-10-106
Proceedings Of A Conference On Education For Creativity In The American College, Berkeley California, Spring 1966.

Descriptors: academic standards; creative ability; creative development; creative expression; creativity; educational change; educational objectives; higher education; self expression; student motivation; talent utilization

The paucity of meaningful academic experiences for potentially or highly creative individuals prompted researchers and performing artists to meet and discuss the implications for creative opportunities in higher education. A truly creative person is thought to be independent, innovative, flexible, with a highly developed sense of the theoretical and the esthetic, and exercises discipline only when he considers it necessary. A rigidly structured and organized academic system invariably discourages self-expression. Consequently, a number of students transfer from or drop out of educational systems too formalized for their tastes. Unfortunately, academe generally assumes that educational needs of all unusual students are met in programs designed for the gifted or exceptional, and many creative individuals who do not meet necessary academic requirements are excluded or ignored. Many questions were raised to which answers could not be provided but participants agreed that very little research has been done on creativity at the college level, except in the creative arts. The task ahead involves learning about the nature and forms of creativity, establishing whether it is innate or may be developed. Then programs should focus on quality education for the total human being, and be flexible enough to stimulate and encourage creative expression. A bibliography of related publications is included. (WM)

ABSTRACT 1112

EC 005 119 ED 026 113
Publ. Date Feb 68 21p.

Williams, Frank E.
Helping the Child Develop His Creative Potential.
Macalester College, St. Paul, Minnesota
EDRS mf,hc
Paper Presented At Wilder Child Guidance Clinic Symposium, Hilton Hotel, St. Paul, Minnesota, February 5-6, 1968.

Descriptors: attitudes; creativity; creativity research; environmental influences; individual characteristics; parent child relationship; parent influence; personality development; psychological characteristics; self concept

In order to help the child develop his creative potential, it is necessary to understand what personality characteristics distinguish the potentially creative child from the average child and what environmental conditions, if any, facilitate the development of creative behavior. Research on the contribution of attitude, temperament, and environmental climate in nurturing the creative potential of the young child is small. Some trends, however, do appear in the existing studies, especially adult studies in which not only the personality of the creative individual is explored, but his childhood is reexamined. Although the relationships between childhood experience, personal attitudes, and creativity often appear inconsistent and even contradictory across individuals, it has been shown that creative people often have great confidence in themselves, are introverted and withdrawn, are very intellectually curious, are nonconforming and independent, had a pleasant but not necessarily close relationship with their parents, did receive support, respect, and relative autonomy from their parents, and were allowed early to exercise their own judgment within limits of consistent discipline. (WD)

ABSTRACT 2518

EC 005 399 ED
Publ. Date 68 253p.
Heist, Paul, Ed.
The Creative College Student: An Unmet Challenge.
EDRS not available
Jossey-Bass, Inc., Publishers, 615 Montgomery Street, San Francisco, California 94111 ($7.75).

Descriptors: exceptional child education; gifted; creativity; college programs; educational needs; creativity development; personality; sciences; music; educational programs; identification; testing; art; creative activities; student evaluation; grading; academic achievement

Eight authors focus on creativity and creative college age youth; topics include the creative student in liberal arts and sciences, the artistically talented and the educational establishment, and the creative student and academic standards. Directions toward solution are reviewed; considerations in the assessment of creativity are appended. A selected bibliography cites 150 items, 27 of them annotated. (JD)

ABSTRACT 365

EC 03 0365 ED N.A.
Publ. Date 63 167p.
Torrance, E. Paul
Education and the Creative Potential.
EDRS not available
University Of Minnesota Press, 2037 University Avenue, S. E., Minneapolis, Minnesota 55414 ($2.25).

Descriptors: creativity; creative development; learning; emotional problems; identification; cultural factors; testing; sex differences

Seven papers and six experimental studies deal with creative talent. Papers discuss the creative potential of school children, conditions that facilitate or inhibit creativity, and mental health problems of highly creative children. A device is given to parents (and teachers) for developing the concept of learning creatively rather than by authority. Identification of creativity through test and nontest methods, and problems of identification and guidance are covered. The influence of the ways in which different cultures treat curiosity and creative needs of children on decrements in measured creative thinking abilities is explored. The value of creative learning in religious education is cited. The six studies concern tests and testing procedures, the interaction of groups and their creative members, methods for increasing creativity in the primary grades, effect of social changes on attitudes toward inquiry, and sex-role identification and creative thinking. (KW)

ABSTRACT 440

EC 03 0440 ED N.A.
Publ. Date 62 278p.
Torrance, E. Paul
Guiding Creative Talent.
EDRS not available
Prentice Hall, Inc., Englewood Cliffs, New Jersey 07632 ($8.95).

Descriptors: creativity; creative development; creative thinking; identification; measurement; emotional problems; counseling; gifted children; Minnesota Tests of Creative Thinking

The book offers information useful for guiding a wide range of creative talent at all educational levels. The importance of guiding highly creative abilities is discussed, and material concerning the assessment of creative talent and growth presented. The Minnesota Tests of Creative Thinking and the reasoning behind them are described. Identification, the development of creative thinking abilities, and common problems of highly creative persons are examined. Problems which result from the suppression of creativity are also considered. Also covered are general and specific goals to guide counselors, concepts concerning relationships and techniques essential to the achievement of the goals, and the qualifications needed by counselors, teachers, and administrators to effectively guide creative talent. Appended is information on the administration of the Minnesota Tests of Creative Thinking. (KW)

ABSTRACT 526

EC 03 0526 ED N.A.
Publ. Date 69 83p.
Torrance, E. Paul
Creativity.
EDRS not available
Dimensions Publishing Company, Box 4221, San Raphael, California 94903.

Descriptors: exceptional child education; gifted; creativity; creative development; early childhood education; evaluation methods; testing; parent role; teaching methods

As part of a series on the early learning of children, the monograph treats creativity. Past and current investigations of the creative behavior of pre-primary children are explored. The creative behavior of early elementary school children is considered in studies of personality, discontinuities of development, and short descriptions of famous creative people as children. In discussing the evaluation of creative behavior, consideration is given to Starkweather's test for pre-primary children, Torrance's tests of creative thinking, and non-test assessment techniques. Teaching activities to encourage creative behavior are described and ways parents can help are suggested. Included are an annotated bibliography and a reference list. (MS)

ABSTRACT 941

EC 03 0941 ED N.A.
Publ. Date 67 289p.
Kagan, Jerome, Ed.
Creativity and Learning.
EDRS not available
Beacon Press, 25 Beacon Street, Boston, Massachusetts 02108 ($2.95).

Descriptors: creativity; creative development; creative thinking; learning; educational philosophy; educational objectives; scientific concepts; sciences; learning processes

Sixteen papers touch upon vital social, educational, political, and psychological issues bearing on creativity, and many are concerned with the deadening effect of group pressure and negative sanctions placed on an unconventional response. Papers discuss conceptual problems in the assessment of creativity (Philip W. Jackson and Samuel Messick), the study of creative persons (Donald W. Mackinnon), creativity and the expression of possibilities (Michael A. Wallach), Darwin, Coleridge, and the theory of unconscious creation (Loren Eiseley), scientific views of creativity and factors affecting its growth (E. Paul Torrance), education for scientific creativity (Jerome B. Wiesner), science education (David Hawkins), unsolved problems of scientific education (Lawrence S. Kubie), the mystique of unconscious creation (Forrest Williams), personality and the learning process (Jerome Kagan), development of creative teacher-scholars (J. Douglas Brown), student selection, educational environment, and cultivation of talent (Cliff W. Wing, Jr.), relation of group activity to scientific creativity (Philip H. Abelson), Human Problems Institute and general education (Nevitt Sanford), changing environments of sci-

ence (Caryl P. Haskins), and federal support of basic research (George B. Kistiakowsky). (KW)

ABSTRACT 2386

EC 03 2386 ED N.A.
Publ. Date 70 400p.
Vernon, P. E., Ed.
Creativity: Selected Readings.
EDRS not available
Penguin Books, Inc., 7110 Ambassador Road, Baltimore, Maryland 21207 ($1.95).

Descriptors: creativity; creativity research; measurement; personality; creative thinking; psychological characteristics

The collection of readings on creativity samples major contributions of the past, as well as recent work. Articles were selected to show the range and variety of work in the area of creativity, to give recognition to the work of British as well as American authors, and to avoid highly technical material. Included are three pioneer empirical studies by M.I. Stein and S.J. Heinze, L.M. Terman, and Anne Roe. Introspective materials are taken from the writings of Mozart, Tchaikovsky, Stephen Spender, and H. Poincare, and contain verbal descriptions of the nature of inspiration as experienced by these different types of creative individuals. Six articles represent theoretical contributions to the study of creativity, and seven others illustrate psychometric approaches. The final two sections contain four studies of relationships between creativity and personality and three articles discussing the stimulation of creativity. (KW)

ABSTRACT 2750

EC 03 2750 ED N.A.
Publ. Date 71 6p.
Gowan, John Curtis
Why Some Gifted Children Become Creative.
EDRS not available
Gifted Child Quarterly; V15 N1 P13-8 Spr 1971

Descriptors: gifted; creativity; family influence; exceptional child research; personality; research reviews (publications)

The article discusses the variance of creativity in gifted children. Literature and research reviews consider some of the reasons (personality or environment) for the difference. Personality aspects of highly creative gifted children emphasizing preconscious, playful, and phallic explanations are discussed. The author notes that so far as family and environmental stimulation are concerned, it appears that whatever stimulates the three personality components (preconscious, playful, phallic) such as parental encouragement of playfulness, independence, impulsiveness, and sensitivity, is valuable. A study conducted by the author is briefly described in which questionnaires were sent to parents of gifted children. The questionnaire provided data on highly creative as opposed to low creative gifted boys and girls. Tentative conclusions and implications note that high creative children and families show a freer style of family life and higher socioeconomic status, more inclination toward the arts, and more liberal political and social views. The author concludes that the family environment has important effects upon the development of creative propensities in children. (CD)

ABSTRACT 2841

EC 03 2841 ED N.A.
Publ. Date 71 13p.
Treffinger, Donald J.; Gowan, John Curtis
An Updated Representative List of Methods and Educational Programs for Stimulating Creativity.
EDRS not available
Journal of Creative Behavior; V5 N2 P127-39 Second Quarter 1971

Descriptors: creative development; teaching methods; resource guides; educational programs; bibliographies; exceptional child education

A representative listing of the gamut of types of available methods, resources, and programs for stimulating creativity includes 49 items. Brief descriptions and source addresses accompanying each item, and bibliographies summarizing useful resources accompany selected items. (CB)

ABSTRACT 2842

EC 03 2842 ED N.A.
Publ. Date 71 12p.
Stievater, Susan M.
A Comprehensive Bibliography of Books on Creativity and Problem-Solving from 1950 to 1970. Part 1.
EDRS not available
Journal of Creative Behavior; V5 N2 P140-51 Second Quarter 1971

Descriptors: creativity research; bibliographies; creativity; problem solving

The first installment of a comprehensive bibliography of books published from 1950 to 1970 relating to creativity and problem solving appears. Authors from A to E are included. (CB)

ABSTRACT 3162

EC 03 3162 ED N.A.
Publ. Date 71 8p.
Witty, Paul A.
The Education of the Gifted and the Creative.
EDRS not available
Gifted Child Quarterly; V15 N2 P109-16 Sum 1971

Descriptors: exceptional child education; gifted; historical reviews; educational trends; creativity; educational programs; identification

Briefly reviewed are developments and research in the education of gifted and creative students since the advent of the intelligence test. It is noted that identification of such students was based primarily on IQ level and that enrichment or acceleration opportunities for the gifted were limited in the period 1925-1950. Increased provisions after 1950 are cited, but such special educational practices were designed mostly for verbally gifted elementary and secondary students. Since 1960, however, the significance of learning in early childhood has been focused upon, and IQ is now seen to be as much a result of environmental influences as hereditary factors. Also summarized are the growth of interest in identifying students with high creative potential, which is not measured by intelligence potential, creative potential, which is not measured by intelligence tests, and some differences between the verbally gifted and the creative in the area of social and peer relationships. Promising trends in the education of the gifted are noted to be a broader concept of giftedness to include creative individuals, development of school programs to identify and encourage creative students, and greater efforts and involvement of parents and teachers. (KW)

ABSTRACT 1241

EC 04 1241 ED N.A.
Publ. Date 72 153p.
Gowan, John Curtis
Development of the Creative Individual.
EDRS not available
Robert R. Knapp, Publisher, Box 7234, San Diego, California 92107 ($5.95).

Descriptors: creative development; developmental psychology; creativity; cognitive development; self actualization

Creativity and self actualization are discussed from a psychological viewpoint in the linking of developmental theory to the psychology of creativity. Individual development is scrutinized, with special attention given to the development of the superior individual. Inclusion of creative production as a process in that developmental escalation is justified. Developmental direction is understood to be away from the egocentric toward greater freedom and self actualization. Following a selective search of the literature on development and creativity, the existence and periodicity of eight developmental stages (Periodic Developmental Stage Theory) are delineated. The concept of escalation, with its five attributes of succession, discontinuity, emergence, differentiation, and integration, is developed. Also discussed are creativity, particularly its preconscious sources in relation to developmental stages; environmental stimulation necessary for creativity at every level; problems and penalties of remaining noncreative; and the process of self actualization as it relates to the last three adult cognitive stages of creativity, psychedelia, and illumination. (KW)

ABSTRACT 1507

EC 04 1507 ED N.A.
Publ. Date 72 133p.
Lytton, Hugh
Creativity and Education.
EDRS not available
Schocken Books, Inc., 67 Park Avenue, New York, New York 10016 ($5.50).

Descriptors: exceptional child education; creative ability; creativity; educational needs; creative thinking

The general discussion on creativity and educational needs centers on the nature of the creative process and the creative

person. Numerous annecdotes and short quotations illustrate the author's discussion. The creative process is likened to a momentary, painful achievement of immortality; creative moments for both the poet and the scientist are sketched as effective surprises. Examined next are measurement of creative ability and prediction of creative production, which involves a short history of the origins of intelligence tests and intelligence test mechanics. Investigation into the nature of creative people reveals that creative individuals are frequently characterized by flexibility and independent judgment. The controversial relationship of madness and genius is briefly explored. Home background and early childhood education are thought to be important in nurturing creativity. A short analysis of the creative child at school considers education's potential bias against creativity, teachers' and pupils' attitudes toward creativity, and the educational atmosphere conducive to creativity. (CB)

ABSTRACT 1934

EC 04 1934 ED 062 737
Publ. Date 72 106p.
Exceptional Children Conference Papers: Creativity and the Gifted.
Council for Exceptional Children, Arlington, Virginia
Bureau of Education for the Handicapped (DHEW/OE), Washington, D. C.
EDRS mf,hc
Papers Presented at the Annual International CEC Convention (50th, Washington, D. C., March 19-24, 1972).

Descriptors: gifted; creativity research; identification; Negro youth; creative thinking; conference reports; federal legislation; talent identification; writing skills; females

Discussed in the eight conference papers on creativity and the gifted are implications of federal legislation for the gifted, the development of a composite measure of artistic creativity, and an empirical study of cognitive style and creative problem solving in junior high school students. A paper on the identification of creativity in writers compares two approaches to the study of creativity: the cognitive-factor approach, which emphasizes intellectual aspects of creativity, and a personality approach. Additional papers concern the effect of subject specialists on gifted children and the school program, identification of academically talented black students, curriculum for nurturing black talent, and similarities of attitudes and background factors among successful women. (KW)

ABSTRACT 2365

EC 04 2365 ED N.A.
Publ. Date 72 9p.
Alamshah, William H.
Blockages to Creativity.
EDRS not available
Journal of Creative Behavior; V6 N2 P105-13 Second Quarter 1972

Descriptors: creativity; socioeconomic influences; psychological characteristics; negative attitudes

Identified are some of the socioeconomic, psychological, and characterological impediments which can hinder creativity in an individual. Socioeconomic blockages can consist of mistaken notions concerning choice of vocation, a cautious or negative attitude toward risk-taking, and mistaken ideas that an IQ score also determines creativity level. Some common psychological blockages are lack of inner quietude, feelings of inferiority, and mistaken estimates of talent. Lastly, three possible characterological blockages are identified: lack of self discipline (due to laziness, self conceit, or fantasy), attachment to things or persons or ideas as an indication of a desire for security, and absence of commitment. (KW)

ABSTRACT 2366

EC 04 2366 ED N.A.
Publ. Date 72 30p.
Torrance, E. Paul
Can We Teach Children to Think Creatively?
EDRS not available
Journal of Creative Behavior; V6 N2 P114-43 Second Quarter 1972

Descriptors: exceptional child research; gifted; creative thinking; research reviews (publications); effective teaching; teaching methods; success factors

The review of the status of knowledge about teaching children to think creatively covers 142 studies of teaching children to think creatively which involve qualification and presentation of evidence. Studies with college students and adults are not included. Tables summarize the nature of the studies and their degree of success. Studies are classified into nine categories of ways of teaching creative thinking: training programs using the Osborn-Parnes Creative Problem Solving procedures, other disciplined procedures, packages of materials, creative arts, media and reading programs, curricular and administrative arrangements, teacher-classroom and class environment variables, motivation and competition, and facilitating testing conditions. The first table summarizes frequency and estimate of success attained in the studies in each category. Tables for each of the categories then present summary data on individual studies: investigator, grade level, nature of treatment, and significant (.05) differences. (KW)

ABSTRACT 110

EC 05 0110 ED N.A.
Publ. Date 72 248p.
Storr, Anthony
The Dynamics of Creation.
EDRS not available
Kingsport Press, Inc., Kingsport, Tennessee 37662 ($7.95).

Descriptors: creativity; motivation; psychological characteristics; psychological needs; theories; behavior theories

The discussion of creativity is concerned chiefly with the question of motive--what drives an artist or scientist to engage in his creative activity. Noted is the inability of past or current psychoanalytic thought to thoroughly explain the creative drive in other than psychopathological terms. Freud's notion of creative activity as wish-fulfillment is considered, and some examples are provided which support the partial validity of this theory. The conscious motives of the artist (desire for fame and honor as a result of his art) are examined, followed by a description of creative activity used as a defense. The schizoid and depressive temperaments are described and some examples are given to show how these temperamental endowments are related to creativity. Examined are the relation between creativity and the obsessional character (creativity as a reflection of a compulsive need to order and control), the relation between genius and madness, the relation between play and creativity, the adaptive function of play (leading to social development), and whether art is also adaptive. Other motives of creativity explored include the quest for identity, the need to be reunited with a world from which the artist feels alienated, and hysterical mechanisms. The concluding understanding of creativity is one in which the contribution of childhood conflict to creativity is taken into account, but which also recognizes other psychodynamic forces within the personality which impel individuals to create. (KW)

ABSTRACT 148

EC 05 0148 ED 069 073
Publ. Date Aug 72 31p.
Gifted and Creativity Research; A Selective Bibliography.
Council for Exceptional Children, Arlington, Virginia. Information Center on Exceptional Children
Bureau of Education for the Handicapped (DHEW/OE), Washington, D. C.

EDRS mf,hc
The Council for Exceptional Children, 1411 S. Jefferson Davis Highway, Arlington, Virginia 22202.

Descriptors: exceptional child research; gifted; annotated bibliographies; abstracts; creativity; creative ability; creativity research; high achievers

The selected bibliography of research on gifted children and creativity contains approximately 79 abstracts with indexing information explained to be drawn from the computer file of abstracts representing the Council for Exceptional Children Information Center's complete holdings as of August, 1972. Abstracts are said to be chosen using the criteria of availability of document to user, currency, information value, author's reputation, and classical content. Preliminary information explains how to read the abstract (a sample abstract is included which identifies the different parts of the abstracts), how to use the author and subject indexes, how to purchase documents through the Educational Resources Information Center Document Reproduction Service (an order blank is provided), an order blank for Exceptional Child Education Abstracts in which the abstracts are originally published, a list of indexing terms searched to compile the bibliography, and a list of journals from which articles are abstracted for the bibliography. Publication date of documents abstracted ranges from 1926 to 1971. (CB)

ABSTRACT 528

EC 05 0528 ED N.A.
Publ. Date 72 181p.
Fredrickson, Ronald H., Ed.; Rothney, John W., Ed.
Recognizing and Assisting Multipotential Youth.
EDRS not available
Charles E. Merrill Publishing Company, 1300 Alum Creek Dr., Columbus, Ohio 43216 ($3.95).

Descriptors: exceptional child education; giftd; high achievers; adolescents; ability identification; females; creative ability; vocational counseling; racial differences; longitudinal studies; national programs; regional programs; state programs

Considered in the collection of readings are the recognition, development, and provisions for multipotential youth, who are defined as those who can develop any number of competencies to a high level while showing a high degree of adaptability. In the first section Paul Torrance discusses the difference between creativity and intelligence and promotes new educational policies. M.A. Guttman gives suggestions for counseling the multipotential female. The educational aspirations and personal goals of bright black youth are among the factors discussed by Donivan Watley. Counseling of multipotential youth in vocational decisions is outlined by Ronald Frederickson. Evidence for continued multipotentiality beyond high school is given by John Rothney. Provisions at the national, regional and state levels for multipotential youth such as organizations and special classes are considered by Marvin Gold, Donald Agnew, and Paul Plowman. A layman's view on the selection of students and teachers by W. McD. Frederick is followed by a summary with implications for curricula, counseling, and governmental involvement. (DB)

ABSTRACT 542

EC 05 0542 ED N.A.
Publ. Date Dec 72 7p.
Feldhusen, John F.; Hobson, Sandra K.
Freedom and Play: Catalysts for Creativity.
EDRS not available
Elementary School Journal; V73 N3 P149-55 Dec 1972

Descriptors: exceptional child research; gifted; creative ability; childhood; program descriptions; play; creative thinking; affective behavior; interpersonal relationship; permissive environment

Described and evaluated was a 6 week creativity training program for 16 fifth and seventh grade children which stressed affective activities in a climate said to be characterized by freedom, playfulness, and warm interpersonal relations. Cited was research in support of the idea that freedom from threat of evaluation and from inhibiting sets or directions is vital to creative thinking. Playfulness, defined as social and cognitive spontaneity, manifest joy, and humor was reported to be correlated with divergent thinking. Also cited was research finding warm interpersonal relations to be one of the most important conditions for creative growth. Group activities and role playing were some of the methods used. Evaluation by means of a video tape, an anecdotal record, and reactions of parents and children found children's reactions to be highly positive, while parents were hesitant or nonsupportive of freedom and openness. (DB)

ABSTRACT 670

EC 05 0670 ED N.A.
Publ. Date Fall 72 27p.
Krippner, Stanley and Others
The Creative Person and Non-Ordinary Reality.
EDRS not available
Gifted Child Quarterly; V16 N3 P203-28, 234 Fall 1972

Descriptors: exceptional child education; creativity; creative development; gifted; perception; hypnosis; drug abuse; time; lateral dominance; sleep; self actualization

The author explores the hypothesis that creativity is linked to a person's ability to perceive a nonordinary reality, that is, to perceive the world differently than most persons through hypnosis, training in translating from one mental modality to another, time distortion, reduced defensiveness, differences in lateral dominance, psychedelic drugs, dreams, extrasensory perception (ESP), or self actualization. Various studies attempting to relate susceptibility to hypnotism with creativity are considered. An experiment in which Ss were taught to multiply visually rather than verbally is described. Investigations indicating that creative people make more use than others of the nondominant brain hemisphere are reviewed. Also considered is the productivity of architects and artists in drug induced states. The report of an anthropology student who was taught to experience nonordinary reality by a Yaqui Indian sorcerer is summarized. Numerous examples of artistic, musical, and scientific creations and discoveries which have been attributed to dream inspiration are discussed. Unusual and puzzling creative achievements in which ESP may have played a role are examined. It is noted that creativity and self actualization are related by such authors as T. Roberts, J. Pearce, H. Cohen, F. Barron, C. Rogers, A. Maslow, and J. Bugental. (GW)

ABSTRACT 1808

EC 05 1808 ED N.A.
Publ. Date 72 101p.
Gilchrist, Margaret
The Psychology of Creativity.
EDRS not available
International Scholarly Book Services, Inc., Box 4347, Portland, Oregon 97208 ($4.00).

Descriptors: exceptional child education; gifted; creative ability; psychology; talent identification; ability identification; creative thinking; creativity research; divergent thinking; intelligence level; psychological characteristics

The psychology of creativity is examined with special emphasis on research which sheds light on the identification of highly creative children and adults. Early studies of genius and intelligence are reviewed as a background for the study of creativity. Definitions of creativity are compared and are said to suggest methods of identification leading to research studies which modify definitions. Potential, process, and product are explained to be aspects of creativity which always involve the capacity to make tangible or intangible products which are both new and valuable. The author compares means of identifying levels of creativity through ability and personality tests (to measure potential), through activities (to measure process), and through actual creative achievements (to measure the product). Various approaches to creativity including psychoanalytic approaches and social approaches are compared. Academic achievement, performance on tests of IQ and divergent thinking, and creative accomplishments are all thought to be measures of intellectual competence which, research has shown are related though not predictive of each other. Research into the personality characteristics of artistically and scientifically creative persons is said to have revealed a common pattern of initiative, energy, dedication, and independence for scientists and undersocialization, unconventionality, and openness to inner experience for artists. (DB)

ABSTRACT 2257

EC 05 2257 ED N.A.
Publ. Date Feb 72 7p.
Bruch, Catherine B.; Torrance, E. Paul
Reaching the Creatively Gifted.
EDRS not available
National Elementary Principal; V51 N5 P69-75 Feb 1972

Descriptors: exceptional child education; gifted; creative ability; psychological characteristics; school role; creative development; administrator role; principals; longitudinal studies; teacher characteristics; Torrance (E.Paul)

C. Bruch and E. Paul Torrance review characteristics of creative children, examine the role of the school in fostering creativity, present a hierarchy of creative skills, and suggest interventions by principals to encourage creativity. Children's creativity is seen to differ from adult creativity in that it has a developmental component, and to be characterized by a preference for openended learning. Reported is a longitudinal 12 year study in which 236 students from grades 7 through 12 were followed up as to the quality and quantity of later creative achievements, which found that creativity test scores predicted adult achievement well enough to encourage the use of the tests to identify creatively gifted children and adolescents. Creative teachers are said to operate by principles such as the avoidance of inhibiting sets and honesty. The proposed taxonomy of creative skills considers six levels of eight qualities: combinations, imagination, missing elements and question asking, sequencing and creative problem solving, alternatives (flexibility), predictions and elaborations, syntheses and analogies, and personal qualities. Principals are encouraged to make special provisions

for the highly creative child, help the child find a sponsor (particularly if the child is disadvantaged) and encourage teachers to teach creatively. (DB)

ABSTRACT 2574

EC 05 2574 ED N.A.
Publ. Date Sum 73 9p.
Krippner, Stanley; Arons, Myron
Creativity: Person, Product, or Process?
Gifted Child Quarterly; V17 N2 P116-23 129 Sum 1973

Descriptors: exceptional child education; gifted; creative ability; creative expression; historical reviews; cross cultural studies

Considered are the person, product, and process aspects of creativity in terms of historical origins and Eastern and Western differences. Creation is seen to have historically meant the bringing of order out of chaos. Focused on is the view of man's brain as a blank slate at birth and culture as cumulative knowledge which is seen to have resulted in the Western view of creativity which stresses exterior discovery and the product of creativity. In contrast Eastern creativity is explained to center on inner discovery with little emphasis on the creation of new products. Humanistic psychology is thought to integrate Western and Eastern views of creativity. (DB)

ABSTRACT 385

EC 06 0385 ED N.A.
Publ. Date 73 9p.
Williams, Frank E.
Stabilizing the Swings - A Synergistic Approach Toward More Creativity in Education.
EDRS not available
Journal of Creative Behavior; V7 N3 P187-95 3rd Qtr 1973

Descriptors: educational trends; trend analysis; educational methods; effective teaching; creativity

The tendency of American education to swing from one extreme to the other is seen in the 'either-or' demands of such education oriented groups as school boards and parents for implementation of specific goals and techniques, and suggested is a synergistic approach which creatively blends workable ideas from each position. Given are 16 examples of 'either-or' positions such as either teaching about knowns, factual content, and reality or teaching about content in fringes of knowledge by allowing students to use their imaginations. Also given are eight examples of blending facets of each position such as teaching knowns and unknowns by centering on a field such as medicine, and stimulating the students to both brainstorm about unknowns in the field and find out what is known. (MC)

ABSTRACT 690

EC 06 0690 ED N.A.
Publ. Date 73 50p.
Torrance, E. Paul; Torrance, J. Pansy
Is Creativity Teachable?
EDRS not available
Phi Delta Kappa Educational Foundation, Eight and Union Streets, Bloomington, Indiana 47401 (.25).

Descriptors: exceptional child research; gifted; creative ability; creativity research; creative development; teaching methods; effective teaching; research reviews (publications)

Reviewed are 142 studies in nine categories which evaluated the effectiveness of teaching creativity. Noted is the opinion of many that creativity is not a skill which can be learned. Summarized are the successes of nine different types of intervention ranging from 91% success with Osborn-Parnes creative problem solving procedures to 50% with curricular and administrative arrangements. A description and results are given for each of the following intervention approaches: Osborn-Parnes modifications (involving problem defining, idea finding, and idea evaluation); other disciplined procedures; packaged instructional materials; creative arts; media and reading programs; curricular and administrative arrangements (such as placing talented children together); teacher-classroom and climate variables; motivation studies; and facilitating testing conditions. The authors conclude that the most successful approaches involve both cognitive and emotional functioning, provide adequate structure and motivation, and give opportunities for involvement, practice, and interaction with teachers and other students. (DB)

ABSTRACT 1930

EC 06 1930 ED N.A.
Publ. Date First Qtr. 74 8p.
Bachtold, Louise M.
The Creative Personality and the Ideal Pupil Revisited.
Journal of Creative Behavior; V8 N1 P47-54 First Quarter 1974

Descriptors: exceptional child research; gifted; elementary school students; junior high school students; creativity; parent attitudes; teacher attitudes; student attitudes; values; psychological characteristics; check lists

Evaluated and compared with characteristics of the creative personality were the ideal person perceptions of 55 teachers, 43 parents, 68 elementary students, and 78 junior high students all involved in enrichment programs for academically talented students. Sixty-two characteristics were rated by Ss as either desirable, undesirable, or most important. Of the four behaviors rated among the highest ten by all four groups none were characteristics of the creative personality. Parents and teachers were very similar in behavioral choices with the junior high and adult groups agreeing on the fewest characteristics. Parents selected four characteristics of the creative personality among the top ten levels of desirability, while teachers selected only two of the most creative characteristics, elementary school students selected only one creative behavior, and junior high students selected none of the creative behaviors as most desirable. Health was rated at the top of the list by both groups of children. Results indicated that in a group selected for their probable exposure to research findings on creative characteristics, most individuals were still rewarding behaviors not facilitative of creative productivity. (DB)

ABSTRACT 2336

EC 06 2336 ED N.A.
Publ. Date Spr 74 3p.
Halpin, W. Gerald and Others
In Search of the Creative Personality Among Gifted Groups.
Gifted Child Quarterly; V18 N1 P31-3 Spr 1974

Descriptors: exceptional child research; gifted; high school students; creativity; personality assessment; social sciences; sciences; mathematics; art; music; second language learning

The What Kind of Person Are You? Test was administered to 360 high school students participating in the 1972 Georgia Governor's Honors Program in the areas of math, science, English, foreign language, social science, drama, music and art. Data showed that individuals gifted in different areas of science, social science and art seem to have more creative personality traits than those gifted in music and foreign language; and that the scientifically and artistically gifted seem to be more curious, energetic, independent, determined, and willing to take risks. (GW)

ABSTRACT 728

EC 07 0728 ED N.A.
Publ. Date 74 9p.
Hallman, Ralph J.
Human Relations and Creativity.
Journal of Creative Behavior; V8 N3 P157-65 3rd 74

Descriptors: exceptional child education; gifted; creative thinking; creative expression; creativity; interpersonal competence; interpersonal relationship; social attitudes; personality assessment;

Creative activity, defined as emotive, internally oriented and guided at least in part by individual aesthetic choices, affects the quality of relationships between gifted people and others. In rejecting established explanations, the creative individual finds himself/herself in a state of confusion which drives him/her to modes of personal expression which reflect individual needs more strongly than those of the group and which therefore may present risks to stable social relations. Sensitivity, concern for the qualitative aspects of experience, independence of judgment, and openness to unconscious processes especially during the second and third stages of the creative process, are other characteristics of creative persons which can have both positive and negative effects. For example, the heightened sensitivity of creative people may promote stronger, more productive associations among members of a group, but it also may lead to heightened vulnerability and the construction of anti-social defense mechanisms. Society will have to be organized in accordance with aesthetic principles in

order to allow for a convergence of self fulfillment and social responsibility in creative persons. (GW)

ABSTRACT 732

EC 07 0732 ED N.A.
Publ. Date 74 21p.
Cole, Henry P.; Parsons, Dennis E.
The Williams Total Creativity Program.
Journal of Creative Behavior; V8 N3 P187-207 74

Descriptors: exceptional child education; gifted; curriculum design; teaching methods; creativity; models; teaching guides; theory; A Total Creativity Program for Individualizing and Humanizing the Learning Process;

The components of F. Williams' Total Creativity Program for Individualizing and Humanizing the Learning Process are described, including five paperback volumes, two poster sets, two audiotapes, a teaching strategies packet, and an instructor's manual. The program is reported to include pupil objectives for broad but behaviorally defined skill areas (such as flexible thinking, original thinking and imagination), tests for identifying competence in these areas, instructions to teachers on how to use the tests, and additional directions for selecting and arranging teaching strategies to foster students' skill in each area. The following features of Williams' system are discussed: the translation of the basic theoretic model and other theory into practical applications, durability, adaptability (since it requires no elaborate materials or expensive hardware), operational definitions of processes and categories, and flexibility (which allows it to offer variety for the ongoing operation of the classroom). The conceptual origin of the program, for instance, in the work of J. Guilford and E. Torrance, is explored. Areas of further development and research are suggested, such as the area of ancillary teacher training materials. (GW)

ABSTRACT 1216

EC 07 1216 ED N. A.
Publ. Date Dec 72 5p.
Levine, Paul H.
Transcendental Meditation and the Science of Creative Intelligence.
Phi Delta Kappan; V54 N4 P231-5 Dec72

Descriptors: exceptional child education; general education; creativity; research reviews (publications); trend analysis; physiology; evaluation; Transcendental Meditation;

Discussed are the increasing popularity of transcendental meditation (TM) for the development of creative intelligence, scientific research validating claims of TM, and implications of TM for education. Man is thought to share with nature a purposeful creative intelligence which can be directly experienced through the practice of TM. Studies are reported showing the effect of TM on the body's use of oxygen, the change in metabolic rate, and change in skin resistance. Effects of TM in reducing stress, improving cognitive and affective abilities, and deepening consciousness are applied to education. Summarized are plans to diffuse the science of creative intelligence and transcendental meditation on a worldwide basis. (DB)

ABSTRACT 1421

EC 07 1421 ED N. A.
Publ. Date 74 214p.
Rosner, Stanley, Ed.; Abt, Lawrence Edwin Ed.
Essays in Creativity.
North River Press, Box 241, Croton-On-Hudson, New York 10520 ($15.00)

Descriptors: exceptional child education; general education; creativity; theories; cognitive processes; creative development; humanism; imagination; psychology;

Six essays on aesthetic, cognitive, developmental, humanistic, philosophical, and psychoanalytic approaches to creativity are presented in order to identify current theoretical trends. Described by R. Arnheim is the visionary attitude of the creative person, as expressed in painting and sculpture. M. Henle places creativity within the framework of cognitive psychology, emphasizing conditions antecedent to creative work such as how questions arise and how experiential gaps occur and lead to creative solutions. Drawing on formulations by J. Piaget, D. Feldman explores relationships among creativity, intelligence, and education and notes problems in identifying creative traits and processes. A humanistic view of creativity is offered by E. Drews, who points to social needs for the contributions of creative individuals. The sources, struggles, and outcomes of the creative act are related to dialectical phenomenology and imagination by A. Hofstadter. H. Slochower analyzes and contrasts ideas of leading psychoanalysts (such as S. Freud and E. Kris) which have led to current theories of creativity. In a concluding chapter, the editors cite the need for a unified theory of creativity and suggest a framework for viewing the creative person, his experience, his psychological field and phases in the creative process. (LH)

ABSTRACT 2017

EC 07 2017 ED N. A.
Publ. Date 4Qtr 74 11p.
Dudek, Stephanie Z.
Creativity in Young Children: Attitude or Ability?
Journal of Creative Behavior; V8 N4 P282-92 4Qtr74

Descriptors: general education; early childhood; childhood; creativity; creative expression; creative thinking; ability; attitudes; personality development;

Creativity in young children, defined as openness and spontaneity, appears to be an attitude or a personality trait, not an ability. It changes in quality as a child grows older, perhaps more as a function of maturation and greater reality contact than as a function of conformity. There is little basis for the muth of universality and creativity in children. Measures of creativity by means of Torrance tests indicate that stability in the early years is not one of its characteristics, although creativity as a trait seems to become more fixed by fifth grade. There is a positive relationship of creativity with mental health and emotional out-goingness in the early years, but this relationship is no longer evident by fifth grade. While it is evident that creativity measures taken at an early age are not predictive of future performance, it is also reasonable to conclude that if a child remains psychologically spontaneous and open, he/she is likely to function well on measures of creativity such as the Torrance tests. Defined as a personality trait, then, creativity in young children has little relationship to creativity as the making of novel products by adults and may be better described by the term 'expressiveness'. (Author)

ABSTRACT 2250

EC 07 2250 ED N. A.
Publ. Date 75 139p.
Glover, John A.; Gary, Albert L.
Behavior Modification: Enhancing Creativity and Other Good Behaviors.
Boxwood Press, 183 Ocean View Boulevard, Pacific Grove, California 93950 ($3.25)

Descriptors: exceptional child education; learning disabilities; reading difficulty; gifted; behavior change; operant conditioning; reinforcement; theories; guidelines; creativity; effective teaching;

Principles and practices of behavior modification are explained to assist parents and teachers in enhancing creative behavior and in facilitating the development of reading in nonreaders. Creative behavior is defined as novel behavior that is useful to oneself, to a peer culture or to society. Five chapters outline the theory and practice of behavior modification in relation to basic concepts (such as reinforcement, discriminative stimulus and extinction); contracts and proclamations; social, peer and other interaction contingencies; modeling; and appropriate techniques for recording and evaluating behavior. A discussion on the identification of creative and gifted children focuses on the relations between intelligence and giftedness and between intelligence and creativeness. A. Goss' three concept types, identification of creativity in terms of process, product or personality, and characteristics of creative persons. Model programs for students lacking reading abilities are described to illustrate typical characteristics of nonreaders and techniques for developing effective reading programs incorporating behavior modification principles. (GW)

ABSTRACT 2420

EC 07 2420 ED 105706
Publ. Date 75 33p.
Creativity: A Selective Bibliography. Exceptional Child Bibliography Series No. 667.
Council for Exceptional Children, Reston, Va. Information Services and Publications.
National Institute of Education (DHEW), Washington, D. C.
CEC Information Services and Publications, the Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091 ($4.00).

Descriptors: gifted; creativity; research reviews (publications); class activities; testing; exceptional child education; ex-

...ptional child research; intelligence level; problem solving; bibliographies; abstracts;

The annotated bibliography on creativity contains approximately 150 abstracts and associated indexing information for documents published from 1961 to 1973 and selected from the computer files of the Council for Exceptional Children's Information Services and the Education Resources Information Center (ERIC). It is explained that titles were chosen in response to user requests and analysis of current trends in the field. Abstracts usually include bibliographic data (identification or order number, publication date, author, title, source or publisher, and availability); descriptors indicating the subject matter covered; and a summary of the document's contents. Citations are divided into five major topical groupings: general creativity, research studies, creativity and the classroom, tests and measurements, creativity and intelligence, and problem solving. References treat aspects such as identification, educational needs, educational programs, creative thinking, performance factors, teaching methods, psychological characteristics, and environmental influences. Also provided are a list of journals from which articles were abstracted and instructions for ordering microfiche or paper copies through the ERIC Document Reproduction Service. (LH)

ABSTRACT 2974

EC 07 2974 ED N. A.
Publ. Date 1qtr75 11p.
Gowan, John Curtis
Trance, Art, and Creativity.
Journal of Creative Behavior ; V9 N1 P1-11

Descriptors: general education; creative development; maturation; creativity; self concept; self actualization; theories; art;

Described are levels of consciousness in contact with the numinous element (the ground of being, also thought of in such terms as God and the collective unconscious). Reviewed are the protaxic (dealing with experiences which cannot be processed cognitively), parataxic (involving partial cognitive explications, as in imagery), and syntaxic (including creativity and biofeedback experiences in which the altered state of consciousness is controlled cognitively). Charted are properties of such syntaxic procedures and graces as orthocognition, adamic ecstasy, and transcendental union. (CL)

ABSTRACT 3048

EC 07 3048 ED N. A.
Publ. Date Jul 75 5p.
Martindale, Colin
How Excitement Fogs Imagination. What Makes Creative People Different.
Psychology Today ; V9 N2 P44-46, 48-50 Jul 75

Descriptors: exceptional child research; gifted; creative ability; creative thinking; divergent thinking; electroencephalography; logical thinking; Alpha Waves; Biofeedback;

Recent studies demonstrated that highly creative people appear to have different patterns of alpha wave levels than moderate and low creative persons. As measured by electroencephalograms (EEGs) of brain activity, primary thought processes (dreams, fantasies, and free associations) were connected with very low and very high levels of cortical arousal, whereas secondary thought processes (logical, analytic, and reality oriented thought) operated most efficiently at medium levels of arousal. Studies of alpha waves (low EEG levels), showed that creative people have higher resting levels of brain wave activity which may explain their oversensitivity to stimuli. Further evidence indicated that most people produce more alpha waves when relaxing and less alpha waves when working, while the highly creative produce less alpha waves when relaxing and more when involved in a creative task. Although it appeared that creative Ss were controlling alpha waves, biofeedback tests showed that creatives did less well than controls in learning to produce or suppress alpha waves. (SB)

ABSTRACT 3122

EC 07 3122 ED N. A.
Publ. Date Aut 74 5p.
Leese, Joseph
The Price of Oblique Thinking.
Gifted Child Quarterly; V18 N3 P163-167

Descriptors: gifted; adolescents; divergent thinking; self concept; peer relationship; exceptional child education; case studies;

Presented is a philosophical discussion of the problems and needs of gifted adolescents with divergent thought patterns. Two case studies are offered to illustrate the self concept and peer rejection difficulties frequently encountered by such students. (LH)

ABSTRACT 3183

EC 07 3183 ED N. A.
Publ. Date Spr 74 9p.
Bronowski, Jacob
The Creative Process.
Andover Review ; V1 N1 P2-10

Descriptors: exceptional child education; gifted; creativity; definitions; sciences; art;

J. Bronowski argues that creativity is involved in the formation of scientific theory, as it is in the work of art, because both embody a personal element of imaginative choice. It is noted that science and art have flourished together in early Greek civilization and during the Renaissance, and that both have sprung from the Mediterranean civilization which expresses itself in action rather than in contemplation. The creative mind is defined as one that looks for unexpected likenesses in the variety of nature. (For related information, see EC 07 3184 and EC 07 3185.) (GW)

ABSTRACT 31

EC 002 485 ED
Publ. Date 65 353p.
Torrance, E. Paul
Rewarding Creative Behavior; Experiments in Classroom Creativity.
Minnesota University, Minneapolis, College Of Education
Office Of Education (DHEW), Washington, D. C., Cooperative Research Branch
EDRS not available
CRP-725
Prentice-Hall, Inc., Englewood Cliffs, New Jersey 07632 ($7.95).

Descriptors: exceptional child research, creativity; teaching methods; evaluation; reinforcement; tests; teacher attitudes; research reviews (publications); thought processes; sex differences; rewards; peer relationship; self concept; cultural differences; case studies (education); measurement techniques; effective teaching; originality; educational methods; experimental programs

The need for rewarding creative thinking is asserted; a plan is proposed for studying evaluation and creative behavior; and measurement of creative behavior is discussed. Three groups of studies are presented. The first set considers the ways the intermediate environment rewards creative behavior; aspects treated include applying principles for rewarding creative thinking, creative and critical evaluative attitudes of teachers, creative activities as rewards for creative thinking, and differential rewards for boys and girls. The second set investigates the following issues about the evaluative behavior of the classroom teacher: competition as external evaluation; unevaluated practice and creative behavior; critical and creative peer-evaluated practice; evaluative discussions about creative productions; peer pressures in homogeneous and heterogeneous groups; positive, negative, and trouble-shooting evaluation; and cultural differences in evaluating creative characteristics. The final study concerns helping children value their ideas. Practical applications of the studies are presented; appendixes are provided on the instruments used in the described studies and on developing creative thinking through language arts. (JD)

ABSTRACT 2491

EC 006 097 ED N.A.
Publ. Date May 70 343p.
Torrance, E. Paul;
Myers, R. E.
Creative Learning and Teaching.
EDRS not available
Dodd, Mead And Company, 79 Madison Avenue, New York, New York 10016 ($5.95).

Descriptors: exceptional child education; creativity; creative development; educational methods; creative activities; creative teaching; teaching techniques; teacher improvement; questioning techniques

To promote creativity in elementary school children, the teacher must be aware of the numerous rather than a single solution to problem situations. In line with this reasoning the authors suggest that creative teaching can make a difference in ability. Built in motivation is necessary, creative development should not be left to chance, and a skillful teacher can facilitate creative learning. Techniques described are an awareness of the child's mind, questioning for information and thought, asking provocative questions, teaching the child to question, providing a responsive environment, and guiding planned sequences of creative activities. Also included are hints for becoming a more creative teacher and an appendix with some characteristics of learning experiences to facilitate creative behavior. (JM)

ABSTRACT 114

EC 03 0114 ED N.A.
Publ. Date 70 364p.
Lowenfeld, Viktor; Brittain, W. Lambert
Creative and Mental Growth. Fifth Edition.
EDRS not available
Macmillan Company, 866 Third Avenue, New York, New York 10022 ($7.95).

Descriptors: art education; creative development; art materials; creative art; painting; freehand drawing; child development

The meaning of art and the importance of creative activity in education are discussed; art in the elementary and secondary school is surveyed. The following six stages of development in art, from age 2 to 17, are reviewed: scribbling, preschematic, schematic, the gang age, pseudonaturalistic, and adolescent. The development of aesthetic awareness is also treated. (JD)

ABSTRACT 928

EC 03 0928 ED N.A.
Publ. Date 69 56p.
Hopkins, Lee Bennett; Shapiro, Annette Frank
Creative Activities for the Gifted Child.
EDRS not available
Fearon Publishers, 2165 Park Boulevard, Palo Alto, California 94306 ($1.50).

Descriptors: exceptional child education; gifted; enrichment; class activities; creative development

Designed to help the teacher with gifted students in her classroom, the book contains over 100 enrichment ideas. The suggested activities cover all fields (art, science, math, music, physical education, language arts, etc.), and many offer the gifted studept the chance to work with his classmates or with younger children. In developing the activities list, the authors tried to recognize and satisfy two needs which motivate gifted children: curiosity and the need for achievement. Activities are divided into those appropriate for the classroom, the school, the community, and those which foster international understanding. (KW)

ABSTRACT 3009

EC 03 3009 ED N.A.
Publ. Date 70 154p.
Taylor, Frank D. and Others
Creative Art Tasks for Children.
EDRS not available
Love Publishing Company, 6635 East Villanova Place, Denver, Colorado 80222.

Descriptors: exceptional child education; handicapped children; art education; art materials; handicrafts; creative expression; guidelines

Based on the theory that art can provide motivation and materials to help exceptional children attend, respond, follow directions, and explore the environment around them, 146 art tasks are presented. One page is devoted to each art task, with pictorial representations of the task to help initiate student response, and simple directions to suggest materials, sequence, and variations. Two to 22 art tasks are found in the following categories: scribble designs, mixing colors, finger painting, mosaics, painting fun, paper construction, making images, creating designs, magic paper, splitting areas, using imagination, paper weights, greeting cards, collages, using molds, figures and faces, classroom crafts, and potpourri. (CB)

ABSTRACT 24

EC 04 0024 ED N.A.
Publ. Date 71 63p.
Witty, Paul A., Ed.
Reading for the Gifted and the Creative Student.
EDRS not available
International Reading Association, 6 Tyre Avenue, Newark, Delaware 19711 ($2.50).

Descriptors: exceptional child education; gifted; creative ability; identification; reading; reading materials; research reviews (publications); family role; teacher role; educational programs

Designed to aid identification of gifted and creative students, the book provides suggestions for appropriate instruction, guidance, and experience in reading programs. First, nature and needs of gifted and creative students are examined by a review of pertinent scientific studies. Second, representative innovative educational programs and reading materials used to improve reading and language arts from primary grades through high school are illustrated. Third, family role in stimulating reading skills for gifted and creative students is presented with specific suggestions for parental guidance of young children. Fourth, description of the effective teacher role is followed by instructions for reading guidance. (CB)

ABSTRACT 2571

EC 04 2571 ED N.A.
Publ. Date Sep 72 4p.
McCormack, Alan J.; Doi, Gary
Creativity is a Bunch of Junk.
EDRS not available

Science and Children, V10 N1 P9-12 Sep 1972

Descriptors: creative thinking; convergent thinking; creative development; science activities; intermediate grades

A specific teaching procedure aimed at stimulating intermediate grade students to devise and build inventions as part of their science program is described. The purpose is to encourage divergent and creative thinking, in which the thinker discovers unique ways of looking at and using common objects. The first stage of the unit (Focus and Stimulation) uses a teacher-designed sequence to focus attention and interest on an open-ended problem susceptible to unlimited creative solutions. Stage two (Opportunity, Materials, and Encouragement) provides time and lots of materials (cardboard, string, rubber bands, wood, and other junk) with which the students create inventive contraptions of the Rube Goldberg type. Pictured are several of the childrens' inventions, with operating instructions. (KW)

ABSTRACT 1539

EC 05 1539 ED N.A.
Publ. Date Win 72 8p.
Pilon, A. Barbara
Don't Let the Well Run Dry: Books to Prime Children's Creative Powers.
Gifted Child Quarterly; V16 N4 P293-300 Win 72

Descriptors: exceptional child education; gifted; creative ability; childhood; annotated bibliographies; bibliotherapy

Recommended are 11 books to encourage the creative development of children. Bibliographic information and a brief description which sometimes includes an excerpt is given for each book. The following books are recommended: 'Make Your Own Animated Movies: Yellow Ball Workshop Film Techniques', 'Catalog of Fantastic Things', 'The Cat's Whisker', 'Ed Emberley's Drawing Book of Animals', 'Only One Ant', 'The Life of Numbers', 'The Beautiful Things', If I Built a Village', Tell a Tall Tale', and 'The Most Beautiful Word'. (DB)

ABSTRACT 2828

EC 05 2628 ED 082 411
Publ. Date 68 50p.
Creative Writing; Guide Lines for Teachers, Upper Elementary Summer School.
Cleveland Public Schools, Ohio. Division of Major Work Classes
EDRS mf,hc

Descriptors: exceptional child education; gifted; teaching guides; writing skills; creative expression; creative ability; elementary school students; Cleveland

The guide offers suggestions and techniques for teaching creative writing to gifted upper elementary school students. Fifteen characteristics of the creative teacher introduce the subject. Approaches are offered for developing the creative writing tools: words, imagery, figures of speech, sound devices, and parts of speech. Story writing is said to require motivation which the teacher can ignite by providing new experiences for students and scanning current media and books for ideas. Categories offered for writing include descriptions, autobiography, letters, proverbs, diaries, characterizations, fables, or items of personal interest. Suggestions are made for writing a paragraph, a title, and a story; and for beginning a story, measuring conversation, and evaluating a story. A definition of poetry introduces ways to achieve a creative climate for composing poetry, following are a list of topics, unusual forms such as Japanese Haiku, tanka, and the limerick; and procedures for evaluating poems. The guide demonstrates fundamentals of poetry writing with examples of verse forms, meter, the foot line (up to octameter), and stanza forms. Six P's of creative writing (perceive, ponder, plan, produce, polish, proofread), a sample poem, and a list of recordings to set a mood for writing conclude the guide. (Included are a bibliography of approximately 100 books and sources of available commercial aids). (MC)

ABSTRACT 384

EC 06 0384 ED N.A.
Publ. Date 73 12p.
Mohan, Madan
Is There a Need for a Course in Creativity in Teacher Education?
EDRS not available
Journal of Creative Behavior; V7 N3 P175-86 3rd Qtr 1973

Descriptors: exceptional child research; gifted; creativity; college students; graduate study; teacher education; universities; course objectives; questionnaires; evaluation

Discussed are six steps used to establish need for a course in creativity for senior and graduate students in a university education department, and presented is a list of creativity courses offered in teacher education at some colleges and universities. The following steps are described: a search of research literature, a survey of local faculty thinking, responses from researchers and teachers in the field, a survey of student teachers, a survey of classroom teachers, and results of in-service workshops. Analysis of the evidence is said to have established need for a course in creativity and validity of the six-step procedure. Approximately 70 courses are listed by college/university, course title, level, and credit hours. (MC)

ABSTRACT 386

EC 06 0386 ED N.A.
Publ. Date 73 5p.
Morrison, Harriet B.
The Creative Classroom.
EDRS not available
Journal of Creative Behavior; V7 N3 P196-200 3rd Qtr 1973

Descriptors: creative development; creative thinking; classroom environment; educational methods; literature reviews

Quotes from literature support the following aspects of classroom atmosphere which encourage creative experience and learning: the creative process, an atmosphere of love to foster cooperation in confronting the unknown, and a spirit of play to stimulate the learning process (seen in construction of a city by first grade children to discover the importance of transportation). (MC)

ABSTRACT 1754

EC 06 1754 ED N.A.
Publ. Date 70 133p.
Torrance, E. Paul
Encouraging Creativity in the Classroom.
William C. Brown, Publishers, 135 South Locust Street, Dubuque, Iowa 52001 ($2.25)

Descriptors: exceptional child education; gifted; creative ability; disadvantaged youth; creative development; creative thinking; creative expression; enrichment; teacher role; classroom activities; reading skills; reading ability; thought processes; student characteristics

Presented for classroom teachers are ways to encourage creative growth of children and young people, including the disadvantaged. Described for creative activities are ways of learning such as the 'magic net' for problem solving in creative dramatics, characteristics such as incompleteness, and guidance by teachers. Teachers are advised to respect and respond to children's creative needs such as curiosity and total absorption in a task. Listed for knowing the learner are 100 ideas relating to aspects such as awareness of individuality, sensing through experimentation, and extending awareness through interpersonal relations. Given for building creative skills and developing mental abilities is a six-level sequential hierarchy beginning with aspects such as production by the child of new combinations through manipulation (level 1) and concluding with aspects such as going beyond the obvious by inferring meanings from statements in a story (level 6). Included for building creative reading skills are ways for 'getting the truth' and learning experiences to aid creativity before, during, and after the reading lesson. A story entitled 'You Can Depend on Bill' is used to illustrate approaches for heightening anticipation (such as asking provocative questions) and for encountering the unexpected and deepening expectations (such as encouraging finding-out skills). Strategies for going beyond the textbook are given to include playing with ambiguities and constructively accepting limitations. Described is discovery of talents of disadvantaged children in a creativity workshop through approaches such as the Tests of Creative-Thinking Ability and creative writing, and listed are six creative positives of disadvantaged children. Discussed as three programs that awaken unrecognized potential in disadvantaged children are the New Haven and Fernwood experiments and a poetry project in Baltimore. (Offered in appendixes are the Ideal Child Checklist and descriptions of experiences involving a teacher's respect for unusual questions and ideas). (MC)

ABSTRACT 2403

EC 06 2403 ED N.A.
Publ. Date Jul 74 2p.
Walker, Joseph J.

Conducting a Total Creativity Workshop.

Educational Technology; V14 N7 P37-8 Jul 1974

Descriptors: exceptional child education; gifted; creativity; teaching methods; effective teaching; workshops; program descriptions

Procedures of a workshop in which F. Williams trained 70 Georgia teachers in the classroom use of his Total Creativity Program (a multi-volume, multi-media resource kit for teachers designed to foster the particular creative abilities of each child in a school) are described. Guidelines for conducting a successful workshop were offered based on creativity workshop experience. (GW)

ABSTRACT 2490

EC 06 2490 ED N.A.
Publ. Date 73 253p.

Laurita, Raymond E.
Reading Writing and Creativity.
Special Child Publications, Division of Bernie Straub Publishing Company, Inc., 4535 Union Bay Place, North East, Seattle, Washington 98105 ($5.95).

Descriptors: exceptional child education; learning disabilities; reading difficulty; reading; failure factors; anxiety; therapy; writing; creativity

Four of the author's articles on reading disability were collected in the book. The first chapter on the relation between frustration and reading disability suggests that the faulty responses observed in the reading disabled may be a type of perceptual defense mechanism used in situations that the learner views as a no escape, frustration situation. In the second chapter, some therapeutic techniques to remove frustration produced anxiety reactions in reading are suggested, such as removing the reading material to be exposed tachistoscopically from the area of meaningful association so as to lessen the anxiety level of those affected with problems of visual discrimination and sequencing. A third chapter on writing suggests that reading (decoding) and writing (encoding) be taught simultaneously with the intention that feedback from kinesthetic writing sense mechanisms would vastly improve the child's ability to internalize the data being fed through visual channels. The final chapter on B. Bloom's taxonomy of educational objectives proposes that many reading problems result from exposure to graphic symbols prior to the development of perceptual readiness, that educational objectives are faulty which are predicated upon a hierarchy in which synthesis behaviors are classified as following analytic behaviors, and that the taxonomy downgrades creativity by viewing evaluation as an end process of cognitive behaviors. (GW)

ABSTRACT 2525

EC 06 2525 ED N.A.
Publ. Date Sep 74 2p.
Callahan, Carolyn M.
Development and Evaluation of a Creativity Training Program.
Exceptional Children; V41 N1 P44-5 Sep 1974

Descriptors: exceptional child research; average students; creative thinking; instructional materials; evaluation; gifted; creative ability; teacher attitudes; student attitudes; New Directions in Creativity

The effectiveness of a systematically developed creativity program, New Directions in Creativity, was tested with 35 experimental and 28 control sixth grade classes. The program specifies training activities (in such areas as brainstorming, imagery, and categorization) for individualized instruction and follow-up programming. After the classes used the program materials 2 1/2 hours per week for 8 weeks, all Ss were given the Verbal Form A and Figure Form B of the Torrance Tests of Creative Thinking (TTCT), and an attitude questionnaire. Teachers were asked to complete a questionnaire on their opinion of the overall program. Findings revealed a highly influential teacher variable and resulting nonsignificant statistical differences between the treatment and control groups. However, results showed that the experimental group did achieve higher mean scores on the TTCT and that students and teachers responded positively to the program. (LC)

ABSTRACT 2741

EC 06 2741 ED N.A.
Publ. Date Oct 74 2p.
Mark, Lois
Challenge Creative Minds.
Instructor; V84 N2 P138-9 Oct 74

Descriptors: exceptional child education; gifted; elementary school students; creative ability; creative development; creative expression; dramatics; teaching methods; teaching guides

Described are no-audience drama exercises involving both real and imaginary objects for children from kindergarten through sixth grade. Noted are activities designed to stimulate creativity, greater freedom of expression, and intensive group interaction such as the discussion of a mystery object found in a closet or attic, or the brainstorming of unusual uses for common objects. Teachers are encouraged to use body movement, pantomime, and sound in story-dramas with decisive beginnings, endings and elements of conflict. (BA)

ABSTRACT 2856

EC 06 2856 ED N.A.
Publ. Date 74 141p.
Labuda, Michael, Ed.
Creative Reading for Gifted Learners: A Design for Excellence.
International Reading Association, 800 Barksdale Road, Newark, Delaware 19711 ($4.50).

Descriptors: exceptional child education; gifted; creative ability; kindergarten; primary grades; intermediate grades; junior high schools; reading; educational needs; goals; instructional materials; language arts; teaching methods; trend analysis

Presented are 14 readings on the nature of gifted and creative children and on reading programs designed to meet their special needs. Three articles provide an overview of reasons for concern about gifted and creative learners, summarize research highlighting the needs of gifted children and explain the scope of a creative reading program, including its goals, resources and materials. Important aspects for teachers to remember are discussed in four articles which assess home and parental influences on gifted children, delineate the elements of a total language arts program for young children (kindergartners through third graders), and discuss reading as a thinking process and outline special characteristics and reading needs of intermediate grade children, and review problems of secondary school pupils. Four authors describe reading goals, materials, and skills for primary grade children; explain ways to give intermediate grade pupils a broad program involving the total language arts; and postulate four principles underlying creativity training of secondary school pupils and describe training activities that will enable older youths to produce creatively. Three entries urge teachers to encourage children's use of imaginative solutions of problems, examine the needs of gifted children to cope with their own uniqueness, and explore the needs of minority group children and learning disabled children who give evidence of giftedness. A final entry discusses encouraging trends in the education of the gifted and offers suggestions for future developments. (Author/GW)

ABSTRACT 379

EC 07 0379 ED N.A.
Publ. Date Oct 74 2p.
Granowsky, Alvin; Botel, Morton
Creative Thinking, Reading, and Writing in the Classroom.
Education Digest; V40 N2 P58-9 Oct 74

Descriptors: exceptional child education; creative ability; creativity; effective teaching;

Creativity can be developed in all children if the following classroom practices occur: children are encouraged to deal with alternative solutions in life, children are provided a psychologically secure environment, children are offered the needed experience and skill in subject areas, and creative acts are rewarded. (DB)

ABSTRACT 727

EC 07 0727 ED N.A.
Publ. Date 74 4p.
Strickland, Melissa
I Was a 'Wrong Answer' Kid.
Journal of Creative Behavior; V8 N3 P153-6 3rd 74

Descriptors: exceptional child education; gifted; creativity; creative thinking; creative expression; etiology; teacher attitudes; problem solving;

The author recounts teacher attitudes which allegedly stifled her creativity and her subsequent participation in a college project designed to nurture creativity. On the basis of those experiences, she suggests that creativity involves the perception of new relationships rather than concern about right or wrong answers, and that creative problem solving in-

cludes definition of the problem as well as consideration of a variety of possible answers. (GW)

ABSTRACT 730

EC 07 0730 ED N.A.
Publ. Date 74 6p.
Eberle, Bob
Does Creative Dramatics Really Square with Research Evidence?
Journal of Creative Behavior; V8 N3 P177-82 74

Descriptors: exceptional child education; gifted; creativity; creative expression; dramatics; curriculum development; effective teaching;

Educational research and theory are reviewed to show that there are valid educational reasons for including creative dramatics in the curriculum. Creative dramatics is said to be characterized primarily by improvised behavior and unique responses to given situations. Creative dramatics is thought to offer qualities and elements of good education which the following research projects identified: research showing that individualized instruction, interpersonal regard, creativity, and group activity are elements of effective education; H. Cole's studies which support process oriented teaching and learning; a variety of research sources suggesting that problem solving methods enhance most, if not all, intellectual skills; F. Williams' research identifying thinking and feeling processes which elicit creative behavior; and data indicating that students can be made more aware of imagery of the sort that seems to be linked to creative thought processes. (GW)

ABSTRACT 1982

EC 07 1982 ED N. A.
Publ. Date Mar 75 6p.
Schofer, Gillian
Creativity for the Elementary School.
Elementary School Journal; V75 N6 P367-72 Mar 75

Descriptors: general education; creative development; models; conceptual schemes; elementary education; effective teaching;

Three models of creativity are defined in relation to their potential usefulness in elementary education: classical creativity which stresses the modification of traditional forms of expression; experiential creativity which emphasizes the individual's physical and emotional condition before and after the creative act; and integrated creativity which focuses on both individual gratification and cultural (that is, classroom) acceptance. Uses of each model in classrooms are cited. It is suggested that the classical model is most beneficial to homogeneous groups, that the experiential model has been used primarily to introduce a wide variety of nonverbal means of expression, and that the integrative model is best suited to elementary schools, especially those that are heterogeneously grouped. (GW)

ABSTRACT 2083

EC 07 2083 ED N. A.
Publ. Date 75 8p.
Renzulli, Joseph S.; Callahan, Carolyn M.
Developing Creativity Training Activities.
Gifted Child Quarterly; V19 N1 P38-45 1975

Descriptors: exceptional child education; gifted; creative development; educational philosophy; cognitive processes; teaching methods; class activities;

The authors discuss four basic principles underlying creativity training and describe activities to foster creative thinking skills. It is explained that creativity training should encourage students to generate many ideas (fluency) to propose many solutions to a given problem (open-endedness), to enjoy uninhibited expression, and to draw upon their background and experiences (environmental relevancy). Suggested activities include developing lists of analogies and synonyms for creative writing and describing moods created by abstract paintings or music. Stressed is the need to free students from traditional modes of thinking and to encourage free expression of ideas. (LH)

ABSTRACT 2327

EC 07 2327 ED N. A.
Publ. Date 74 115p.
Mcintyre, Barbara M.
Creative Drama in the Elementary School.
F. E. Peacock Publishers, Inc., 401 W. Irving Park Road, Itasca, Illinois 60143 ($3.50)

Descriptors: general education; creative ability; elementary education; dramatics; teaching methods; class activities; language arts; poetry; expressive language;

Described is the role of creative drama in elementary school language arts instruction. The dramatic process is analyzed in terms of sense awareness, movement, characterization, improvization, and dramatization. Suggested are teaching methods and games, such as listening, touching, improvization, and story dramatization activities for the primary grades. The dramatic process in the intermediate grades are explained to be expanded primary techniques with the additional stress on developing interpretive skills, poetry, and problem solving skills. (CL)

ABSTRACT 3035

EC 07 3035 ED N. A.
Publ. Date 75 26p.
Klock, Mary Eileen
Creative Drama: A Selected and Annotated Bibliography.
Children's Association of America, Division of the American Theatre Association, 1317 F Street, N. W., Washington, D. C. 20202

Descriptors: general education; creative expression; dramatics; bibliographies; abstracts;

The bibliography on creative drama contains 100 annotated listings organized within four categories: books and articles in collections, articles in periodicals, dissertations and theses, and published and unpublished bibliographies. References are arranged alphabetically by author within each category and usually include title, publisher or source, publication date, and pagination. (LH)

ABSTRACT 3123

EC 07 3123 ED N. A.
Publ. Date Aut 74 3p.
Nash, William R.
The Effects of a School for the Gifted in Averting the Fourth Grade Slump in Creativity.
Gifted Child Quarterly; V18 N3 P168-170

Descriptors: gifted; creative development; creative thinking; imagination; exceptional child research; intermediate grades;

Evaluated were the effects on creative functioning of a special school approach that emphasized imagination, inventive behavior, and use of creative development materials with 66 gifted fourth grade children. Alternate verbal forms of the Torrance Tests of Creative Thinking were administered to Ss at the beginning and end of the school year. Highly significant increases in scores were found for fluency, flexibility, and originality, leading to conclusions that a school setting that emphasizes creative growth can avert a fourth grade slump in creative functioning among the gifted. (LH)

ABSTRACT 3132

EC 07 3132 ED N. A.
Publ. Date Win 74 7p.
Torrance, E. Paul
Retooling Education for Creative Talent: How Goes It?
Gifted Child Quarterly; V19 N4 P233-239

Descriptors: gifted; creative ability; teaching methods; identification; instructional materials; trend analysis; exceptional child research; educational objectives; aptitude tests; personality assessment; achievement;

A review of trends over the last 15 years in education for creative talent has revealed progress in educational objectives, teaching methods, curriculum and instructional materials, and identification; but little progress in the assessment of creative achievement. Differences in educational objectives are indicated by the greater abundance of research material on problem solving behavior and creativity in the classroom. Teaching methods have been improved by innovative teacher education programs which stress teaching to develop creativity. Change has been most visible in the area of curricular and instructional materials with the production of such devices as the Making It Strange series and New Directions in Creativity program. While a number of tests (such as the Torrance Tests of Creative Thinking) have been devised for identifying creative talent, relatively little retooling has taken place in the area of instruments for study of creative personalities. Comprehensive approaches to assess creative achievement have not yet been formed. (SB)

ABSTRACT 3186

EC 07 3186 ED N. A.
Publ. Date Spr 74 19p.
Ratte, John
Creativity in the Study of History.
Andover Review ; V1 N1 P26-44

Descriptors: general education; creativity; teacher role; educational methods; history; history instruction; curriculum design;

The achievement of creativity in the design of history courses and curricula is discussed. Developments of the 1960's, the introduction of inquiry or discovery methods of learning in replacement of lectures and textbooks, and the stress on the teaching of basic social studies concepts are discussed. It is argued that the possibilities for inventiveness and energy in curriculum development and the design of individual courses are much greater thanks to the activities of the 1960's, but that the task remains for the individual and the small group with or without elaborate materials and conceptual schemes developed by university consultants and professional educators. The aim of teaching history and thereby establishing an awareness of heritage and community is considered. (GW)

ABSTRACT 3419

EC 07 3419 ED N. A.
Publ. Date Jul/Au75 4p.
Danoff, Judith
Children's Art: The Creative Process.
Children Today; V4 N4 P7-10

Descriptors: general education; childhood; art; teaching methods; creative expression; creative development; nonverbal communication; age differences;

In children's art, emphasis should be placed on the creative process rather than on the creative product which results. The three developmental stages of creativity (exploration, intuitive design, and intended design) can be applied to all art media and should be encouraged. Because a child's drawings represent not what he sees but what he feels is significant, art can provide an opportunity to act out feelings and disturbing experiences. Certain questions (What are you making?) and structured materials (coloring books) should be avoided because they may interfere with the natural process of creative expression. (SB)

ABSTRACT 167

EC 003 990 ED 031 835
Publ. Date Mar 68 22p.
McFee, June King
Creative Problem Solving Abilities in Art of Academically Superior Adolescents.

National Art Education Association, (NEA), Washington, D. C.;
Stanford University, California, School Of Education;
Palo Alto Public Schools, California
Ford Foundation, New York, New York
EDRS mf
National Art Education Association, 1201 16th Street, N. W., Washington, D. C. 20036 (HC $0.60).

Descriptors: exceptional child research; art; gifted; creativity; curriculum; art education; problem solving; design; student evaluation; creative art; testing; student attitudes; thought processes; self concept

To investigate the relationship of a creativity-oriented design curriculum to the creative development of gifted adolescents, an activities guide was developed and used with 27 pupils placed in a special art class which met for one period daily. Creativity tests were given and evaluations of art products were made before and after six months of the program for the experimental group and the 32 controls; although these frequently called for subjective judgements, criteria for rating were established. Students in the experimental group generally performed significantly better in tests of fluency, adaptive flexibility, and originality requiring divergent production, but not in convergent production or in rate of emission of familiar congitive responses. Attitudes toward creativity changed in a positive direction, and experimental students indicated less fear of failure and more self confidence. Conclusions were that designing may be a more complex process than had been assumed and that an art program focusing on problem solving and creative behavior has important functions in the education of the gifted. (RJ)

ABSTRACT 2459

EC 0[illegible] 2459 ED N.A.
Publ. Date Apr 69 171p.
Goodkind, Thomas B. and Others
Conflict, the Law, and Society; A Problem-Solving Approach to Solving Problems.
Hartford Board of Education, Connecticut, Operation ASTRA
Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D. C.
EDRS not available
DPSC 68-5125
Hartford City Board of Education, 249 High Street, Hartford, Connecticut 06103

Descriptors: exceptional child education; gifted; social studies; curriculum; enrichment; problem solving; conflict resolution; law enforcement; junior high school students

The social studies supplementary enrichment unit is intended for use by gifted students in the middle grades. The unit focuses on the question of conflict, attempting to teach students to recognize conflict, understand its causes and possible resolutions, and acquire skill in resolving conflicts. Conflicts studied begin with those of a personal or private nature and progress to those of a public, community, and national nature. The approach used is one of problem-solving through group and/or individual study. Emphasized is consideration of alternative solutions. Activities suggested are intended to develop specific attitudes, skills, and understandings needed in problem-solving. They are also intended to provide opportunities for students to participate in conflict situations (through role playing, dramatizations, and simulations, such as the conducting of mock court trials). After covering conflict in our society, the unit focuses on the law and the resolution of conflict. (KW)

ABSTRACT 2627

EC 05 2627 ED 082 410
Publ. Date 69 33p.
Imagination Unlimited: A Guide for Creative Problem Solving, Upper Elementary Summer School.
Cleveland Public Schools, Ohio. Division of Major Work Classes
EDRS mf,hc

Descriptors: exceptional child education; gifted; teaching guides; creative thinking; problem solving; creative ability; elementary school students; thought processes; imagination; Cleveland

The guide gives procedures for helping gifted upper elementary school students in Major Work classes utilize their imagination. Appropriate literary quotes introduce a discussion on creativity, which involves the imaginative recombination of known ideas into something new. Considered are obstacles that work against creativity such as mental laziness, fear of being different, and inadequate motivation. Suggested for teachers to help students use imagination to solve problems are procedures such as establishing an environment of freedom or encouraging self-initiated learning. The creative thinking process is described to consist of defining a problem, collecting data on the problem, and analyzing facts for the fact finding component; producing ideas, incubating ideas, and forcing different relationships on habitual relationships to develop ideas; and evaluating and adopting ideas to seek solutions. A hypothetical problem of a student who dreads classroom elections because she might not be chosen is presented. The first worksheet contains eight facts on the problems, possible sources, and results. The next worksheet lists questions that might define the problem. On the third worksheet the student circles 16 of 27 ideas that might lead to a solution. The fourth worksheet contains a matrix listing previous ideas according to criteria and decision for present or future use. The last worksheet shows nine ways to carry out the idea of making more friends. Sample problems significant to personal relationships, literature, science, social studies, and general situations; a fact finding worksheet; and techniques for producing ideas are provided. (MC)

ABSTRACT 1331

EC 06 1331 ED N.A.
Publ. Date Win 73 8p.
Wilson, Sandra H. and Others
Synectics, A Creative Problem-Solving Technique for the Gifted.
Gifted Child Quarterly; V17 N4 P260-7 Win 1973

Descriptors: exceptional child education; problem solving; creative thinking; teaching methods, gifted

Explained to develop creative problem solving skills of gifted children is synectics (defined as a joining together of unrelated elements), which is a group activity that involves statement of a problem, analysis by an expert, purge of the obvious, restatement of the problem in language understood by all, selection of a component for intensive consideration, use of four types of analogies for understanding, force-fit of findings to needs of the problem, and application of the information to the original problem. (MC)

ABSTRACT 1929

EC 06 1929 ED N.A.
Publ. Date First Qtr. 74 11p.
Treffinger, Donald J. and Others
Improving Children's Creative Problem Solving Ability: The Purdue Creativity Project.
Journal of Creative Behavior; V8 N1 P20-30 First Quarter 1974

Descriptors: exceptional child research; creative development; creative thinking; elementary school students; divergent thinking; teacher characteristics; program effectiveness; problem solving; teacher role

Evaluated with 36 fifth-grade classes (793 pupils) were the effectiveness of the Purdue Creativity Training Program (PCTP) and the Productive Thinking Program (PTP) taught by teachers of either high or low divergent thinking ability, in either massed or distributed instruction, and with or without active teacher involvement. Among instruments used to assess creativity were the Torrance Tests of Creative Thinking, the Old Black House Problem, and two real life problems. Results indicated that both the PCTP and the PTP improved the children's divergent thinking abilities; that both programs improved Ss' performance on creative problem solving; that superior performance was associated with low teacher involvement and with teachers low in divergent thinking ability when used in massed (only 4 weeks) instruction; and that the PTP was less influenced by variations in rate of presentation, teacher participation, and teacher level of divergent thinking than the PCTP. Results concerning teacher involvement may have been affected by research difficulties in defining treatments and assessing divergent thinking abilities of teachers. (DB)

ABSTRACT 2333

EC 06 2333 ED N.A.
Publ. Date Spr 74 5p.
Torrance, E. Paul
Interscholastic Brainstorming and Creative Problem Solving Competition for the Creatively Gifted.
Gifted Child Quarterly; V18 N1 P3-7 Spr 1974

Descriptors: gifted; economically disadvantaged; creative thinking; problem solving; program descriptions; exceptional child research; childhood; creativity; interschool communication

Reported are results of a competition in which 20 economically disadvantaged children (6- to 13-years-old) enrolled in a summer creativity workshop and 20 comparatively advantaged children (6- to 13-years-old) from a program for the gifted vied in two brainstorming tasks. Interscholastic brainstorming and creative problem solving competition is recommended as a way in which creatively gifted children may bring honor and recognition to themselves and their schools. The competition is described as adaptable for all educational levels and as lacking any sex, racial or socioeconomic bias. (GW)

ABSTRACT 2734

EC 06 2734 ED N.A.
Publ. Date 74 12p.
Behrens, Roy R.
The Weave (and Warp) of Invention.
Journal of Creative Behavior; V8 N2 P81-92 Second Quarter 74

Descriptors: exceptional child education; gifted; concept formation; conceptual schemes; visual perception; cognitive processes; divergent thinking; creativity; creative thinking

Citing examples from famous psychologists, philosophers, artists, and inventors the author examines and sometimes traces historically several cognitive processes and comments upon creativity, divergent thinking, grouping similar things and the relationship between visual perception and thinking. The process of grouping, including figure ground and boundary concepts is examined and a resemblance between processes of seeing and thinking is suggested. Breaking boundaries by discovering previously neglected similarities thus bringing two disparates together (bisociation) is explained through examples. A connection between grouping disorders of mentally ill persons and grouping orders of other persons is suggested. Examples of grouping from the works of famous men (W. Shakespeare and W. Blake for example) and from the records of psychiatric patients are provided. (MYS)

ABSTRACT 391

EC 07 0391 ED N.A.
Publ. Date Nov 74 4p.
Shapiro, Sylvia
'Cope-Ability' Through Problem-Solving.
Teacher; V92 N3 P42 44 117-8 Nov 74

Descriptors: exceptional child education; handicapped children; elementary education; teaching methods; teacher characteristics; problem solving; creative thinking;

Ways in which teachers can help children become more creative thinkers and problem solvers are identified. Teachers are encouraged to center class activities around issues that interest and involve children, to be accepting of children's ideas and feelings, and to allow students to develop their own capacity for problem solving. It is recommended that teachers provide clues rather than answers when children ask questions, that children be trained to raise questions as a problem solving strategy, and that divergent thinking be developed through such methods as classification activities and brainstorming sessions. (GW)

ABSTRACT 706

EC 07 0706 ED N.A.
Publ. Date Sep 74 8p.
Feinberg, Saul
Creative Problem-Solving and the Music Listening Experience: Ideas for an Approach.
Music Educators Journal; V61 N1 P53-60 Sep 74

Descriptors: exceptional child education; handicapped children; music; listening skills; creative thinking; learning processes; course objectives; lesson plans; problem solving;

A creative approach to perceptive music listening is thought to involve setting up problem solving situations in which the listener develops the divergent thinking abilities of fluency, flexibility, and elaboration. The application of the divergent thinking abilities to listening is explained, and tasks for developing those abilities are suggested. Accompanying the task suggestions are two charts, one which tests the listener's aural flexibility by having him/her match music qualities to sections in the music, and one which lists music qualities related to such factors as melody, rhythm, and tone-color. It is maintained that three interrelated stages of the creative thinking process (the preparational stage, the exploratory-transformative stage, and the synthetic stage) can serve as a model for organizing the lessons of a listening episode, as well as a means by which an entire listening course could be structured. An example of a preparational listening lesson structured along the lines of the creative thinking model is provided. (GW)

ABSTRACT 729

EC 07 0729 ED N.A.
Publ. Date 74 11p.
R. V. Peavy
Creative Helping.
Journal of Creative Behavior; V8 N3 P166-76 74

Descriptors: exceptional child education; gifted; creativity; creative thinking; creative expression; social influences; personality development; personality change; psychological characteristics; emotional adjustment;

Educational and therapeutic efforts to develop personality creatively must take into account both the uniqueness of the individual and his cultural context to be successful. In a technicized society choice becomes automatic and is based on efficient, precise and logical progression rather than human creativity. The ribosathic man acts like a machine insofar as he/she allows activities to become atomized and unrelated. Individuals living in a technicized social order often exhibit a severe state of personality underdevelopment known as anomie. Yet, as R. Schacht has shown, a distinctive personality is not simply a lofty ideal, but amounts to an existential imperative. N. Berdyaev argues that the development of true personality and creative expression are deeply intertwined, while C. Rogers has identified the creative person as one who is open to experience, is able to play spontaneously with ideas, and has an internal locus of evaluation. To the extent that an individual is influenced by technicizing processes the following conditions which are inimical to personality development can be defined: lack of channels for creative experience; over-identification with mechanistic aspects of society, over-reliance on others, reinforced passivity toward the new, and prosaic attitudes. Blocks that individuals may develop in a context inimical to growth may include lack of awareness, a one-dimensional view of the self, feelings of inability or inadequacy, negativity to the new, tiredness and depression, and body blocks. Five impulses which may be regarded as indicators of potential development are confusion, crisis, self contradiction, rebelliousness, tension, and thoughts of differentness. Educational and therapeutic efforts should help the person explore such experiences as original thinking and excitement, and facilitate such activities as integration of the new with the old and testing of new behaviors in real life situations. (GW)

ABSTRACT 733

EC 07 0733 ED N.A.
Publ. Date 74 3p.
Taylor, Irving A. and Others
A Note on 'Instant Creativity' at CPSI.
Journal of Creative Behavior; V8 N3 P208-10 74

Descriptors: exceptional child research; gifted; creativity; sensory experience; stimulation; art;

Drawing assignments were given before and after sessions of simultaneous stimulation of major sensory processes to 207 participants in a creative problem solving institute. Comparison of sets of drawings indicated that 78% of participants increased in openness, 58% of Ss increased in spontaneity, 51% of Ss increased in depth, 66% of Ss increased in impact, and 31% of Ss increased in originality. (GW)

ABSTRACT 735

EC 07 0735 ED N.A.
Publ. Date 74 10p.
Stievater, Susan M.
Bibliography of Recent Theses on Creativity and Problem-Solving, Supplement V.
Journal of Creative Behavior; V8 N3 P214-23 74

Descriptors: exceptional child education; gifted; creativity; problem solving;

bibliographies; masters theses; doctoral theses;

The bibliography lists approximately 75 recent theses on creativity and problem solving. Theses titles are arranged alphabetically according to author. (GW)

ABSTRACT 1511

EC 07 1511 ED N. A.
Publ. Date 63 417p.
Osborn, Alex F.
Applied Imagination: Principles and Procedures of Creative Problem Solving. Third Revised Edition.
Charles Scribner's Sons, 597 Fifth Avenue, New York, New York 10017 ($7.95)

Descriptors: exceptional child education; creativity; creative ability; creative thinking; divergent thinking; imagination; problem solving; decision making; group discussion;

The book is intended to help individuals improve their ability to solve problems creatively. It is stressed that training can enable the student to use his existing talents more productively. Considered are the following topics: the all-importance of imagination, universality of imaginative talent, creative and noncreative forms of imagination, factors that tend to cramp creativity, our new environment (urbanization) – its effects on creativity, ways to develop creativity, the creative problem-solving process, the interrelationship of preparation and analysis, the basis of idea finding – association of ideas, principles and procedures of deliberate idea finding, individual ideation and team collaboration, creative collaboration by groups, detailed procedures of group brainstorming, processing of tentative ideas, devices designed to help activate idea production, questions as spurs to ideation, adaptation and modification of ideas, maximizing and minimizing ideas, rearrangement and reversal of ideas, the effect of emotional drives on ideation, the effect of effort on creativity, incubation and illumination, the element of luck in creative quests, evolution and obsolescence of 'new' ideas, indispensability of creativity in science, careers and creativity, creativity in leadership and in professions, and using imagination to improve personal relations. (DB)

ABSTRACT 2975

EC 07 2975 ED N. A.
Publ. Date 1qtr75 7p.
Getzels, J. W.
Problem-Finding and the Inventiveness of Solutions.
Journal of Creative Behavior ; V9 N1 P12-8

Descriptors: general education; creative thinking; problem solving; thought processes; questioning techniques;

Described is a conception of problem finding and its role in the solution of problems. It is explained that identifying where problems lie in a dilemma and finding the functional problem lead to effective and frequently creative solutions. (CL)

ABSTRACT 3650

EC 07 3650 ED N. A.
Publ. Date Aug 75 11p.
Goor, Amos; Sommerfeld, Roy E.
A Comparison of Problem-Solving Processes of Creative Students and Noncreative Students.
Journal of Educational Psychology; V67 N4 P495-505

Descriptors: exceptional child research; gifted; postsecondary education; creative thinking; problem solving; thought processes;

Analyzed were the verbalizations of 26 creative and 26 noncreative university students while they were engaged in three problem-solving tasks. Transcriptions were timed for 3 -second intervals and each unit was classified into one of seven categories. Markoff chain analyses showed that the high creative Ss had thought patterns discernible from those of the low creative Ss; that the patterns demonstrated a gradually increasing divergence along the time dimension for the concrete task; that the behavior contributing most to these trends was a more rapid decrease of productive work on the part of the low creative Ss; and that the nature of the task appeared to influence the pattern of responses. (Author/CL)

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